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Regulations and Non-Regulatory Revisions to State Implementation Plan: Virginia

Atlantic Environmental Associates, Inc.
Waltham, MA

Prepared for

Environmental Protection Agency
Research Triangle Park, NC

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Regulations and Non-Regulatory Revisions to State Implementation Plan: Virginia

By

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Contract No. 68-02-3565

EPA Project Officer: Willis P. Beal

Prepared for

U.S ENVIRONMENTAL PROTECTION AGENCY
Control Programs Development Division
Office of Air Quality Planning and Standards
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16. ABSTRACT

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA-approved State and/or local air pollution control regulations cited by reference in the Federal Register; regulations promulgated as of August 1, 1981 have been included in this document.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979. State and/or local air quality regulations which have not been Federally approved as of August 1, 1981, are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State, or local agencies to enforce such regulations. A summary sheet of the regulatory revisions is provided to give a quick historical assessment of the changes.

The second part of the document contains the text of non-regulatory SIP revisions approved by EPA up to August 1, 1981, excluding notices or certifications of public hearings and technical support data. A complete tabulation of these revisions is also provided.

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This report has been reviewed by the Control Programs Development Division of the Office of Air Quality Planning and Standards, EPA, and approved for publication. Mention of trade names or commercial products is not intended to constitute endorsement or recommendation for use. Copies of the entire document are available for inspection and copying at EPA Headquarters (401 M Street SW, Washington, DC 20460), EPA's Office of Air Quality Planning and Standards (Room 826, 411 West Chapel Hill Street, Durham, NC 27701), and the appropriate EPA Regional Offices. Documents containing only the regulatory portions of each State Implementation Plan may be ordered for a nominal fee from the National Technical Information Services, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

PREFACE

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA approved State and/or local air pollution control regulations cited by reference in the Federal Register; all regulations Federally promulgated as of August 1, 1981 have been included.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979.* State and/or local air quality regulations which have not been Federally approved as of August 1, 1981 are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State or local agencies to enforce such regulations.

This document is not intended to provide a tool for determining the enforceability of any given regulation. Rather, it is intended to provide a comprehensive compilation of those regulations which are incorporated by reference into Title 40, Part 52, of the Code of Federal Regulations (CFR). The exclusion of a Federally approved regulation from this document does not diminish the enforceability of the regulation. Similarly, the inclusion of a given regulation in this document does not, in itself, render the regulation enforceable by either the State or EPA.

The regulations have been organized in this document according to the official State/local agency format. However, since State air quality regulations vary widely in their organization, content, and language, a standardized subject index has been added. The index listings consist of both pollutant and activity oriented categories to facilitate usage. For example, regulations which apply to copper smelters may be found under sulfur compounds (50.2), particulate matter process weight (50.1.1), or copper smelters (51.15). Federal regulations pertaining to a given State are not included herein but can be found under Title 40 Code of Federal Regulations, Part 52.

Additionally, a summary sheet of the regulatory revisions is included to provide a quick historical assessment of the changes. These summary sheets contain the date of submittal to EPA of each revision and the Federal Register publication date on which the revision was approved by EPA. A brief description of the regulation which was submitted is also included.

In accordance with the Act, the second part of the document contains non-regulatory SIP revisions approved by EPA up to August 1, 1981. All approved non-regulatory revisions listed under Identification of Plan in the CFR are included except notices or certifications of public hearings, and technical support data. Non-regulatory submittals which have only received EPA approval on selected elements are included in their entirety with an accompanying indication of the status of Federal actions on the non-approved elements. The non-regulatory revisions have been organized in this document according to the date of publication of EPA approval in the Federal Register. For historical completeness, a complete tabulation of these revisions is provided at the beginning of this second section.

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* Regulations and Non-Regulatory Revisions to State Implementation Plan: Virginia, EPA-450/2-80-053, prepared under Contract 68-02-3388, July 31, 1980.

SUMMARY OF
EPA-APPROVED REGULATORY REVISIONS TO STATE OF VIRGINIA SIP
BETWEEN JULY 1, 1979 AND JULY 31, 1981

Publication of Approval	Submittal Date	Page	Document Description
08/19/80	08/14/75	45FR55195	Sections 2.33(b) and (i) of the regulations.
08/19/80	08/31/77	45FR55195	Section 2.33(h) of the regulations.
08/19/80	01/12/79	45FR55195	Sections 2.33(a), (c), (d), (e), (f), (g), and (k) of the Virginia Regulations. (Note: Portion pertaining to Smyth County is not approved. Section 4.55(b) disapproved.)
08/19/80	09/07/79	45FR55195	Section 2.33(g)(1)(vi) of the regulations, submitted to remedy deficiencies in the nonattainment area plans.
08/19/80	09/24/79	45FR55195	Revisions to remedy deficiencies in the nonattainment area plans: Section 4.57(b)(2)(ii); 4.55(f)(4)(i); 4.56(e); 4.52(a); 2.03(a)(1); 2.33(f)(3); Part I of the regulations, the definitions of "Delayed Compliance Order" and "Non-attainment Area"; Sections 4.02(f)(1) through 4.02(f)(5); Appendix N; and those portions of Sections 4.54, 4.55 and 4.56 where the phrase "will be considered acceptable compliance by the Board" has been modified. (Note: Section 4.55(b) is disapproved.)
10/08/80	08/14/75	45FR66792	Amendments to Part II 206(b) and (c); Part VII 7.03 (d); deletion of Part IV Rule Ex-7 4.07.05 - Secretary of Commerce and Resources.
10/08/80	09/20/78	45FR66792	Amendments to Part I 1.02; II 2.06(a) and (d); III 3.02(a) and (b); IV 4.20, 4.21, 4.23, 4.25, 4.26, 4.27 and 4.51(a); VII (lettering changes); Sections 701(b) and 7.02(a), (b), and (d); Appendix A, Deletion of 4.20, 4.21 and 4.22 (under former system). Secretary of CFR.
10/08/80	03/11/77	45FR66792	Amendments to Part VII 703(c) and (e), 704(c) deletion of II 204a(2) - Secretary of CFR.
10/08/80	09/21/79	45FR66792	Amendments to Part I 1.02; IV Rule EX-2, 4.22; and VII 7.03(a) and (b) - Secretary of CFR.
10/08/80	08/14/75	45FR66792	Amendments to Part I 1.02; II 2.02(a), (c), (e), 2.05(b), 2.11; IV 4.10, 4.11, 4.13, etc.
10/08/80	10/20/76	45FR66792	Amendment to Parts I 1.02; III 3.02(c); IV 4.02(a), (a)(1), (a)(2) and (d) (formerly 2.04), VII 7.04(a), (b), (d), and (e).
10/08/80	03/11/77	45FR66792	Amendment to Part II 2.02(b).
10/08/80	09/20/78	45FR66792	Amendment to Part II 2.02(d).
12/30/80	-	45FR85749	Correction for the 08/19/80 Federal Register Notice. No submittal.
04/20/81	09/21/79	46FR22583	Amendment to Part I 1.02; Part IV 4.30, 4.31, 4.32. (Note: Part IV 4.31(d)(3) disapproved.)

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PART I

DEFINITIONS

1.01 GENERAL

(a) For the purpose of these regulations and subsequent amendments or any orders issued by the Board, the words or terms shall have the meanings indicated in Section 1.02.

(b) Unless specifically defined in the Virginia Air Pollution Control Law or in these regulations, terms used shall have the meanings commonly ascribed to them by recognized authorities.

(c) The terms defined in these regulations are underlined in the text to emphasize that the term has a specially defined meaning.

1.02 TERMS DEFINED

ACTUAL HEAT INPUT. The sum of the actual heat input of all existing, new and modified fuel burning equipment which is operating during any specified period at a facility.

ADMINISTRATIVE PROCESS ACT. Title 9, Chapter 1.1:1 of the Code of Virginia (1950), as amended.

AFFECTED FACILITY. With reference to a stationary source, any apparatus process or operation to which an emission standard is applicable.

AIRCRAFT OPERATION. An aircraft takeoff or landing.

AIR POLLUTION. The presence in the outdoor atmosphere of one or more substances which are or may be harmful or injurious to human health, welfare or safety; to animal or plant life; or to property; or which unreasonably interfere with the enjoyment by the people of life or property.

AIR POLLUTION EPISODE. A situation which is declared by responsible authorities as set forth in Part VII when weather and/or air pollution conditions indicate a potential threat to human health.

AIR QUALITY. The specific measurement in the ambient air of a particular air pollutant at any given time.

AIR QUALITY CONTROL REGION. Any area designated as such in Appendix B.

AIR QUALITY MAINTENANCE AREA. Any area which due to current air quality and/or projected growth rate, may have the potential for exceeding any ambient air quality standard set forth in Part III within a subsequent 10-year period and designated as such in Appendix H.

AIR TABLE. A source consisting of a device using a gaseous separating medium for the primary purpose of improving product quality.

ALTERNATIVE METHOD. Any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method, but which has been demonstrated to the satisfaction of the Board to, in specific cases, produce results adequate for its determination of compliance.

AMBIENT AIR. That portion of the atmosphere external to buildings, to which the general public has access.

AMBIENT AIR QUALITY STANDARD. Any primary or secondary standard designated as such in Part III.

APPLICATION AREA. The area where the coating is applied by spraying, dipping or flowcoating techniques.

ARCHITECTURAL COATING. Coating used for residential, commercial, industrial buildings and their appurtenances.

ASPHALT. A dark-brown to black cementitious material (solid, semisolid, or liquid in-consistency) in which the predominating constituents are bitumens which occur in nature as such, or which are obtained as residue in refining petroleum.

AUTOMOBILE. All passenger cars or passenger derivatives capable of seating 12 or fewer passengers.

BEEHIVE COKE OVEN. A source consisting of an arched, beehive shaped, oven in which heat is supplied by partial combustion of the coal within the oven chambers and in which destructive distillation of coal occurs with no recovery of by-products.

BEST AVAILABLE CONTROL TECHNOLOGY. Best available control technology shall be determined on a case-by-case basis considering the following:

(1) The process, fuels and raw material available and to be employed in the facility involved;

(2) The engineering aspects of the application of various types of control techniques which have been adequately demonstrated.

(3) Process and fuel changes;

(4) The respective costs of the application of all such control techniques, process changes, alternative fuels, etc;

(5) Any applicable emission standards; and

(6) Locational and siting considerations.

BOARD. The State Air Pollution Control Board or its designated representative.

COAL REFUSE. Any waste coal, rock, shale, culm, boney, slate, clay or related materials, associated with or near a coal seam, which are either brought above ground or otherwise removed from the mine in the process of mining coal, or which are separated from coal during the cleaning or preparation operations, provided, however, that coal refuse shall not mean overburden from strip mining operations or rock from mine shafts and mine tunnels.

COAL REFUSE DISPOSAL AREA. Any source or potential source consisting of any area or plot of land used as a place for dumping, storage or disposal of coal refuse. A coal refuse pile must be contained in a single coal refuse disposal area; however, a coal refuse disposal area may contain two or more coal refuse piles if the area is so designated.

COAL REFUSE PILE. Any source consisting of any deposit of coal refuse on or buried in the earth and intended for permanent disposal of or long-term storage of such material. Continuous deposits of coal refuse and deposits not separated by an approved method shall be considered as a single coal refuse pile.

COATING APPLICATOR. An apparatus used to apply a surface coating.

COATING LINE. One or more apparatus or operations comprised of a coating applicator, flash-off area and oven wherein a surface coating is applied, dried, and/or cured.

COIL COATING. The coating of any flat metal sheet or strip that comes in rolls or coils.

COLD CLEANING. The batch process of cleaning and removing foreign matter from metal surfaces by spraying, brushing, flushing, or immersion while maintaining the solvent below its boiling point. Wipe cleaning is not included in this definition.

COMBUSTION INSTALLATION. A source consisting of any furnace, oven, kiln, incinerator, fuel burning equipment or any other stationary equipment in which solid, liquid or gaseous materials are burned.

COMMENCE.

(1) For Highway Project Indirect Sources

Means when the location and/or design is approved which authorizes the beginning of right-of-way acquisition. Such approval must be made by the State Highways and Transportation Commission or other governmental entity having the authority for final project funding approval.

(2) For Stationary Sources and all other Indirect Sources

Means when a continuous program of onsite construction or

BULK GASOLINE PLANTS. A secondary distribution point for delivering gasoline to local farms, businesses, service stations, and other distribution points, where the total gasoline throughput is 20,000 gallons or less per working day, based on the daily average for the most recent 12-month period.

BULK GASOLINE TERMINALS. A primary distribution point for delivering gasoline to bulk plants, service stations, and other distribution points, where the total gasoline throughput is greater than 20,000 gallons per working day, based on the daily average for the most recent 12-month period.

BY PRODUCT COKE PLANT. A source consisting of a plant, oven, or device used in connection with the distillation process to produce coke. Such plant consists of, but is not limited to, coal and coke handling equipment, by-product chemical plant and other equipment associated with and attendant to the coking chambers or ovens making up a single battery operated and controlled as a single unit.

CAPACITY FACTOR. The ratio of the average load on a machine or equipment for the period of time considered to the capacity rating of the machine or equipment.

CAPITAL EXPENDITURE. An expenditure for a physical or operational change to a facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service Publication 534 and the affected facility's basis, as defined by Section 1012 of the Internal Revenue Code.

CHEMICAL FERTILIZER. A compound or mixture, whose chief ingredients are nitrogen, phosphorous, potassium or any combination of these ingredients, which has agronomic value.

COAL PREPARATION PLANT. A source consisting of, but not limited to, coal crushing, screening, washing, drying and air separation operations used for the purpose of preparing the product for marketing.

modification, including site clearance, grading, dredging or land filling specifically designed for a source in preparation for the construction or modification of the source is undertaken, or a contractual obligation is made to undertake, to be completed within a reasonable time. For the purpose of this definition, interruptions resulting from acts of God, strikes, litigation or other matters beyond the control of the owner shall be disregarded in determining whether a construction or modification program is continuous.

CONDENSATE. A hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

CONSENT AGREEMENT. An agreement that the owner will perform specific actions for the purpose of diminishing or abating the causes of air pollution or for the purpose of being in compliance with these regulations, as mutually agreed to by such owner and the Board.

CONSENT ORDER. A consent agreement issued as an order. Such orders may be issued without a hearing.

CONSTRUCTION. Fabrication, erection or installation of an affected facility or indirect source.

CONTINUOUS MONITORING SYSTEM. The total equipment used to sample and condition (if applicable), to analyze, and to provide a permanent continuous record of emissions or process parameters.

CONTROL PROGRAM. A plan submitted to the Board voluntarily or upon request or order of the Board, by the owner of a stationary source, to establish pollution abatement goals and compliance schedules to achieve such goals so as to ensure compliance by the owner with standards, policies and regulations adopted by the Board. The plan shall include such system and equipment information and projected operating performance as is required by the Board for evaluation of the probability of achieving goals of the plan. A control program shall contain the following increments of progress:

(1) Date by which contracts for emission control system or process modifications will be awarded; or date by which orders will be issued for the purchase of component parts to accomplish emission control or process modification:

(2) Date of initiation of on-site construction or installation of emission control equipment or process change;

(3) Date by which the on-site construction or installation of emission control equipment or process modification is to be completed; and

(4) Date by which final compliance is to be achieved.

CONVEYORIZED DEGREASING. The continuous process of cleaning and removing foreign matter from metal surfaces by operating with either cold or vaporized solvents.

CRITERIA POLLUTANT. Pollutants for which ambient air quality standards are prescribed under Part III.

CRUDE OIL. A naturally occurring mixture which consists of hydrocarbons and/or sulfur, nitrogen and/or oxygen derivatives of hydrocarbons, and which is a liquid at standard conditions.

CUSTODY TRANSFER. The transfer of produced crude oil and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

CUTBACK ASPHALT. Asphalt cement which has been liquefied by blending with petroleum solvents (diluents). Upon exposure to atmospheric conditions the diluents evaporate, leaving the asphalt cement to perform its function.

DAY. A 24-hour period beginning at midnight.

DELAYED COMPLIANCE ORDER. Any order of the Board issued after an appropriate hearing to an owner which postpones the date by which a stationary source is required to comply with any requirement contained in the applicable State Implementation Plan.

EFFLUENT WATER SEPARATOR. Any source consisting of any tank, box, sump or other container in which any volatile organic compound floating on or entrained or contained in water entering such tank, box, sump or other container is physically separated and removed from such water prior to outfall, drainage or recovery of such water.

EMERGENCY. A situation that immediately and unreasonably affects, or has the potential to immediately and unreasonably affect, public health, safety or welfare; the health of animal or plant life; or property, whether used for recreational, commercial, industrial, agricultural or other reasonable use.

EMERGENCY SPECIAL ORDER. Any order of the Board issued in a state of emergency without a hearing to owners who are permitting or causing air pollution, to cease such pollution. Such orders shall become invalid if an appropriate hearing is not held within 10 days after the effective date.

EMISSION STANDARD. Any provision of Parts IV, V and VI prescribing an emission limitation or level of opacity, prescribing equipment or fuel specifications, or other requirements that result in control of air pollution emissions.

EMULSIFIED ASPHALT. An emulsion of asphalt cement and water which contains a small amount of an emulsifying agent; a heterogenous system containing two normally immiscible phases (asphalt and water) in which the water forms the continuous phase of the emulsion, and minute globules of asphalt form the discontinuous phase.

EQUIVALENT METHOD. Any method of sampling and analyzing for an air pollutant which has been demonstrated to the satisfaction of the Board to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

EXCESS EMISSIONS. Emissions of an air pollutant in excess of an emission standard.

EXECUTIVE DIRECTOR. The Executive Director of the State Air Pollution Control Board or his designated representative.

EXISTING SOURCE. Any stationary source other than a new source or modified source.

FABRIC COATING. The coating of a textile substrate by knife, roll or rotogravure coating to impart properties that are not initially present, such as strength, stability, water or acid repellancy, or appearance.

FACILITY. Something that is built, installed or established to serve a particular purpose; includes, but is not limited to, buildings, installations, public works, businesses, commercial and industrial plants, shops and stores, heating and power plants, apparatus, processes, operations, structures and equipment of all types.

FEDERAL CLEAN AIR ACT. 42 USC 1857 et. seq. 84 Stat. 1676.

FIREBOX. The chamber or compartment of a boiler or furnace in which materials are burned but does not mean the combustion chamber of an incinerator.

FIXED CAPITAL COST. The capital needed to provide all the depreciable components.

FLASHOFF AREA. The space between the application area and the oven.

FLY ASH. Particulate matter capable of being gas-borne or airborne and consisting of fused ash and partially burned or unburned fuel or other material from a combustion installation.

FOSSIL FUEL-FIRED STEAM GENERATOR. A furnace and/or boiler used in the process of burning fossil fuel for the primary purpose of producing steam by heat transfer.

FOUNDRY CUPOLA. A shaft type furnace used for melting of metals, consisting of, but not limited to, furnace proper, tuyeres, fans or blowers, tapping spout, charging equipment, gas cleaning devices and other auxiliaries.

FOUNDRY OPEN HEARTH. A furnace in which the melting and refining of metal is accomplished by the application of heat to a saucer type or shallow hearth in a closed chamber, consisting of, but not limited to, the furnace proper, checkers, flues, stacks and other auxiliaries.

FREEBOARD HEIGHT.

(1) For cold cleaners, the distance from the liquid solvent level in the degreaser tank to the lip of the tank.

(2) For open top vapor degreasers, the distance from the solvent vapor level in the tank to the lip of the tank.

FREEBOARD RATIO. The freeboard height divided by the width of the degreaser.

FUEL BURNING EQUIPMENT. Any furnace, with all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat to be utilized by indirect heat transfer or producing power.

FUGITIVE DUST. Solid airborne particulate matter or dust emitted from any source other than a flue, stack or open burning.

FUMES. Minute particulate matter generated by the condensation of vapors from solid matter after volatilization from the molten state, or generated by sublimation, distillation, calcination or chemical reaction when these processes create airborne particles.

GASOLINE. Any petroleum distillate having a Reid vapor pressure of 4 pounds or greater.

GASOLINE DISPENSING FACILITY. Any site where gasoline is dispensed to motor vehicle gasoline tanks from stationary storage tanks.

HAZARDOUS AIR POLLUTANT. An air pollutant to which no ambient air quality standard is applicable and which may cause,or contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness.

HEAT INPUT. The total gross calorific value of all fuels burned.

HIGHWAY PROJECT. A proposal to develop all or a portion of a highway section which would result in a specific construction contract.

HIGHWAY SECTION. A portion of an existing or proposed highway extending between logical termini (major crossroads, population centers, major traffic generators or similar major highway control elements) as normally included in a single location study or multi-year highway improvement program as set forth in 23 CFR 770.201 (38 FR 31677, November 16, 1973).

HOT WELL. The reservoir of a condensing unit receiving the warm condensate from the condenser.

HYDROCARBON. An organic compound containing only carbon and hydrogen.

INCINERATOR. Any furnace used in the process of burning waste for the primary purpose of destroying matter and/or reducing the volume of the waste by removing combustible matter.

INDIRECT SOURCE. A facility, building, structure or installation which, when completed, will attract or may attract mobile source activity that results in emissions of a pollutant. Such indirect sources include, but are not limited to:

(1) Highways and roads

(2) Parking facilities

(3) Retail, commercial and industrial facilities

(4) Recreation, amusement, sports and entertainment facilities.

(5) Airports

(6) Office and Government Buildings

(7) Apartment and condominium buildings

(8) Education facilities

ISOKINETIC SAMPLING. Sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

KNIFE COATING. The application of a coating material to a substrate by means of drawing the substrate beneath a knife that spreads the coating evenly over the full width of the substrate.

LARGE APPLIANCE. Residential and commercial washers, dryers, ranges, refrigerators, freezers, water heater, diswashers, trash compactors, air conditioners and other similar metal products. Includes door cases, lids, panels, and interior metal support parts.

LIGHT DUTY TRUCKS. Any motor vehicles rated at 8500 pounds gross vehicle weight or less which are designed primarily for purposes of transportation of property or are derivatives of such vehicles; includes pick-ups, vans and window vans.

LIQUID ORGANIC COMPOUND. Any organic compound which is a liquid at standard conditions.

LOADING FACILITY. Any aggregation or combination of loading equipment for volatile organic compounds which is both possessed by one owner and located so that all the organic liquid loading outlets for such aggregation or combination of loading equipment can be encompassed within any circle of 300 feet in diameter. This includes all stationary dispensing stations handling volatile organic compounds.

LOCALITY. A city, town, county or other public body created by or pursuant to State Law.

LOWEST ACHIEVABLE EMISSION RATE. For any stationary source, that rate of emissions which reflects the most stringent emission limitation which is contained in the state implementation plan of any state for such class or category of source, unless the owner of the proposed source demonstrates that such limitations are not achievable, or the most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent.

MAGNET WIRE COATING. The process of applying a coating, electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

MAJOR STATIONARY SOURCE. Any stationary source which has the potential to emit, one hundred tons per year or more of any air pollutant.

MALFUNCTION. Any sudden failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner.

MANUFACTURING OPERATION. Any source consisting of any process or combination of physically connected dissimilar processes which is operated to effect physical and/or chemical changes in an article.

MATERIALS HANDLING EQUIPMENT. Any source consisting of any equipment used as a part of a process or combination of processes which does not effect a physical or chemical change in the material or in an article, such as, but not limited to, conveyors, elevators, feeders or weighers.

MELT TIME. The time in which the metal is melting and available at the spout or tap hole, excluding any time the equipment is idle, preheating or preparing for shutdown.

METAL FURNITURE COATING. The surface coating of any furniture made of metal or any metal part which will be assembled with other metal, wood, fabric, plastic or glass parts to form a furniture piece.

MIST. A state of atmospheric obscurity produced by suspended liquid droplets.

MOBILE SOURCES. Any vehicle, including, but not limited to, any motor vehicle (automobile, truck, bus, etc.), or other landcraft; airplane or other aircraft; locomotive, or other rail vehicle; ship, boat or other watercraft; which emits or may emit any air pollutant.

MODIFICATION (INDIRECT SOURCE). Any physical or structural change in an indirect source which increases or may increase the mobile source activity associated with such indirect source.

MODIFICATION (MAJOR STATIONARY SOURCE). Any modification to a stationary source which increases the potential rate of any air pollutant (including any not previously emitted and taking into account all accumulated increases in potential emissions occurring at the source since August 7, 1977, or since the time of the last permit issued to the source pursuant to Section 2.33, whichever time is more recent, regardless of any emission reductions achieved elsewhere in the source) by 100 tons per year or more.

MODIFICATION (STATIONARY SOURCE). Any physical change in, or change in the method of operation of, an affected facility which increases the amount of any air pollutant emitted into the atmosphere by that facility or which results in the emission of any air pollutant into the atmosphere not previously emitted, except that the following shall not, by themselves, be considered modifications under this definition:

(1) Maintenance, repair and replacement which the Board determines to be routine for a source type.

(2) An increase in production rate of a facility, if that increase can be accomplished without a major capital expenditure on the stationary source containing that facility.

(3) An increase in the hours of operation.

(4) Use of an alternative fuel or raw material if, prior to the date any provision of these regulations becomes applicable to that source type, the affected facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if provisions for that use were included in the final construction specifications. Conversion to coal required for energy considerations, as stipulated in Section 119(d)(5) of the Federal Clean Air Act, shall not be considered a modification.

(5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Board considers to be less efficient.

(6) The change in ownership of a facility.

MODIFIED SOURCE. Any source, either stationary, indirect or any combination thereof, the modification of which is commenced on or after the effective date of applicable provisions of these regulations.

MONITORING DEVICE. The total equipment used to measure and record (if applicable) process parameters.

MOTOR VEHICLE. Any powered conveyance of a type normally licensed by the Virginia Division of Motor Vehicles.

NEW SOURCE. Any source, either stationary, indirect or any combination thereof, the construction or reconstruction of which is commenced on or after the effective date of applicable provisions of these regulations; any source relocated on or after the effective date of applicable provisions of these regulations.

NITRIC ACID PLANT. Any facility producing nitric acid 30 to 70 percent in strength by either the pressure or atmospheric pressure process.

NITROGEN OXIDES. All oxides of nitrogen except nitrous oxide, as measured by test methods set forth in 40 CFR Part 60.

NONATTAINMENT AREA. Any area which is shown by air quality monitoring data or, where such data are not available, which is calculated by air quality modeling (or other methods determined by the Board to be reliable) to exceed the levels allowed by the ambient air quality standard for a given pollutant, including, but not limited to, areas designed as such in Appendix K.

NON-METHANE. When used to modify volatile organic compounds (or hydrocarbons), means all volatile organic compounds (or hydrocarbons) except methane; ethane; 1,1,1, - trichloroethane (methyl chloroform); methylene chloride; and trichlorotrifluoroethane (fluorocarbon 113). Inclusion of the above compounds in this definition in effect exempts such compounds from the provisions of Sections 4.54 through 4.57. The compounds are exempted on the basis of being so inactive that they will not contribute significantly to the formation of ozone in the troposhere. However, the exemption does not extend to other properties of the exempted compounds which, at some future date, may require regulation and limitation of their use in accordance with requirements of Title I, Part A (Air Quality and Emission Limitations), Section 112 (National Emission Standards for Hazardous Air Pollutants) and Title I, Part B (Ozone Protection), Section 157 (Regulations) of the Federal Clean Air Act.

ONE-HOUR. Any period of 60 consecutive minutes.

ONE-HOUR PERIOD. Any period of 60 consecutive minutes commencing on the hour.

OPACITY. The degree to which emissions reduce the transmission of light and obscure the view of an object in the background, expressed as a percentage.

OPEN BURNING. The burning of any matter in such a manner that the resulting products of combustion from the burning are emitted directly into the atmosphere without passing through a stack, duct, or chimney.

OPEN TOP VAPOR DEGREASING. The batch process of cleaning and removing foreign matter from metal surfaces by condensing hot solvent vapor on the colder metal parts.

ORDER. Any decision or directive of the Board including special orders, emergency special orders, and orders of all types, rendered for the purpose of diminishing or abating the causes of air pollution or enforcement of these regulations. Unless specified otherwise in these regulations, orders shall only be issued after the appropriate hearing.

ORGANIC COMPOUND. Any chemical compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates, and ammonium carbonate.

OVEN. A chamber within which heat is used to bake, cure, polymerize, and/or dry a surface coating.

OWNER. Any person, including bodies politic and corporate, associations, partnerships, personal representatives, trustees and committees, as well as individuals, who owns, leases, operates, controls, or supervises a source.

PAPER COATING. The coating of paper and pressure sensitive tapes regardless of substrate by knife, roll or rotogravure coating. Related wet coating process on plastic films and decorative coatings on metal foil are included in this definition.

PARTICULATE. Any finely divided solid or liquid material, other than uncombined water, as measured by the applicable reference method or an equivalent or alternative method.

PENETRATING PRIME COAT. An application of low-viscosity liquid asphalt to an absorbent surface. It is used to prepare an untreated base for an asphalt surface. The prime penetrates the base and fills the surface voids, hardens the top, and helps bind it to the overlying asphalt course. It also reduces the necessity of maintaining an untreated base course prior to placing the asphalt pavement.

PERFORMANCE TEST. A test for determining emissions from new or modified sources.

PERSON. As used in these regulations, shall have no connotation other than that customarily assigned to the term "person", but shall include bodies politic and corporate, associations, partnerships, personal representatives, trustees and committees, as well as individuals.

PETROLEUM LIQUIDS. Crude oil, condensate, and any finished or intermediate products manufactured or extracted in a petroleum refinery.

PETROLEUM REFINERY. Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants or other products through distillation of petroleum or through redistillation, cracking, rearrangement or reforming of unfinished petroleum derivatives.

PHOTOCHEMICALLY REACTIVE ORGANIC COMPOUND. Any organic compound or mixture of organic compounds with an aggregate of more than 20 percent of the total volume composed of chemical compounds classified below or which exceeds any of the following individual percentage composition limitations, referred to the total volume:

(1) A combination of hydrocarbons, alcohols, aldehydes, esters, ethers or ketones having an olefinic or cyclo-olefinic type of unsaturation: 5 percent,

(2) A combination of aromatic hydrocarbons with 8 or more carbon atoms, excluding ethylbenzene: 8 percent,

(3) A combination ofethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.

Any organic compound or mixture of organic compounds which may be classified from its chemical structure into more than one of the above groups of organic compounds shall be considered to be a member of the most reactive chemical group, that is; the group having the least allowable percentage of the total volume of organic compounds.

PHYSICALLY CONNECTED. Any combination of processes connected by materials handling equipment and designed for simultaneous complementary operation.

POLLUTANT. Any substance the presence of which in the outdoor atmosphere is or may be harmful or injurious to human health, welfare, or safety, to animal or plant life, or to property, or which unreasonably interferes with the enjoyment by the people of life or property.

POTENTIAL TO EMIT. The capability at maximum capacity to emit a pollutant in the absence of air pollution control equipment. Air pollution control equipment includes control equipment which is not, aside from air pollution control laws and regulations, vital to production of the normal product of the source or to its normal operation. Annual potential shall be based on the maximum annual rated capacity of the source, unless the source is subject to enforceable permit conditions which limit the annual hours of operation. Enforceable permit conditions on the type or amount of materials combusted or processed may be used in determining the potential emission rate of a source.

PROCESS OPERATION. Any source consisting of any method, form, action, operation or treatment of manufacturing or processing, including any storage or handling or materials or products before, during or after manufacturing or processing.

PROCESS UNIT. Any step in a manufacturing operation which results in the emission of pollutants to the atmosphere.

PROCESS WEIGHT. Total weight of all materials introduced into any source process unit which may cause any emission of pollutants. Process weight includes solid fuels charged, but does not include liquid and gaseous fuels charged or combustion air for all fuels.

PROCESS WEIGHT RATE. A rate established as follows:

(1) For continuous or long-run steady-state source operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.

(2) For cyclical or batch unit operations, or unit processes, the total weight for a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period.

PRODUCTION RATE. The weight of final product obtained per hour of operation. If the rate of product going to storage can vary, the production rate shall be determined by calculation from the feed rates of raw material.

PROPORTIONAL SAMPLING. Sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

PUBLIC COMMENT PERIOD. A time period consisting of 30 days, in which the public shall be given the opportunity to comment on an owner's new or modified source permit application information (exclusive of confidential information) and the tentative analysis of the effect of such source upon the ambient air quality and the proposed decision of the Board regarding the permit application.

RATED CAPACITY. The capacity as stipulated in the purchase contract for the condition of 100 percent load, or such other capacities as mutually agreed to by the Board and owner using good engineering judgment.

REASONABLE FURTHER PROGRESS. Annual incremental reductions in emissions of a given air pollutant (including substantial reductions in the early years following approval or promulgation of a state implementation plan and regular reductions thereafter) which are sufficient in the judgment of the Board to provide for attainment of the applicable ambient air quality standard within a specified time period.

RECONSTRUCTION. The replacement of components of an affected facility to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and

(2) It is technologically and economically feasible to meet the applicable emission standards prescribed under these regulations.

REFERENCE METHOD. Any method of sampling and analyzing for an air pollutant as described in the following EPA regulations:

(1) For ambient air quality standards. Appendices A thru F of 40 CFR Part 50 as applicable or any method that has been designated as a reference method in accordance with 40 CFR Part 53, except that it does not include a method for which a reference designation has been cancelled in accordance with 40 CFR 53.11 or 40 CFR 53.16.

(2) For emission standards in Parts IV and V; Appendix A of 40 CFR Part 60.

(3) For emission standards in Part VI: Appendix B of 40 CFR Part 60.

REFINERY FUEL GAS. Any gas which is generated by a petroleum refinery process unit and which is combusted, including any gaseous mixture of natural gas and fuel gas.

REGIONAL DIRECTOR. The Regional Director of an Air Quality Control Region or his designated representative.

REID VAPOR PRESSURE. The absolute vapor pressure of volatile crude and volatile nonviscous petroleum liquids except liquefied petroleum gases as determined by American Society for Testing and Materials, Part 17, 1973, D-322-72 (Reapproved 1977).

ROLL COATING. The application of a coating material to a substrate by means of hard rubber or metal rolls.

ROTOGRAVURE COATING. The application of a coating material to a substrate by means of a roll coating technique in which the pattern to be applied is etched on the coating roll. The coating material is picked up in these recessed areas and is transferred to the substrate.

RUN. The net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

SALVAGE OPERATION. Any source consisting of a business, trade or industry engaged in whole or in part in salvaging or reclaiming any product or material, such as, but not limited to, reprocessing of used motor oils, metals, chemicals, shipping containers or drums, and specifically including automobile graveyards and junkyards as defined in Section 33-279.3 of the Code of Virginia (1950), as amended.

SHUTDOWN. The cessation of operation of an affected facility for any purpose.

SIX-MINUTE PERIOD. Any one of the 10 equal parts of a one-hour period.

SMOKE. Small gasborne particulate matter consisting predominantly but not exclusively of carbon, ash and other material in concentrations sufficient to form a visible plume.

SOILING INDEX. A measure of the soiling properties of suspended particles in air determined by drawing a measured volume of air through a known area of Whatman No. 4 filter paper for a measured period of time (normally 2 hours) expressed by COH's/1000 linear feet.

SOLVENT. Organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents.

SOLVENT METAL CLEANING. The process of cleaning foreign matter from metal surfaces by cold cleaning or open top vapor degreasing or conveyorized degreasing.

SOURCE. Any one or combination of the following: buildings, structures, facilities, installations, articles, machines, equipment, landcraft, watercraft, aircraft, or other contrivances which contribute, or may contribute, either directly or indirectly to air pollution. Any activity by any person that contributes, or may contribute, either directly or indirectly to air pollution, including, but not limited to, open burning, generation of fugitive dust or emissions, and cleaning with abrasives or chemicals.

SPECIAL ORDER. Any order of the Board issued after an appropriate hearing:

(1) to owners who are permitting or causing air pollution, to cease and desist from such pollution;

(2) to owners who have failed to construct facilities in accordance with or have failed to comply with plans for the control of air pollution submitted by them to, and approved by the Board, to construct such facilities in accordance with or otherwise comply with, such approved plan;

(3) to owners who have violated or failed to comply with the terms and provisions of any order or directive issued by the Board, to comply with such terms and provisions;

(4) to owners who have contravened duly adopted and promulgated air quality standards and policies, to cease and desist from such contravention and to comply with such air quality standards and policies; and

(5) to require any owner to comply with the provisions of this chapter and any decision of the Board.

STACK OR CHIMNEY. Any flue, conduit or duct arranged to conduct emissions into the atmosphere.

STANDARD CONDITIONS. A temperature of 20°C (68°F) and a pressure of 760 mm of Hg (29.92 in. of Hg).

STANDARD METROPOLITAN STATISTICAL AREA. Any area designated as such in Appendix G.

STANDARD OF PERFORMANCE. Degree of air pollutant emission limitation achievable through the application of best available control technology which the Board determines has been adequately demonstrated.

STARTUP. The setting in operation of an affected facility for any purpose.

STATIONARY SOURCE. Any building, structure, facility or installation which emits or may emit any air pollutant and which contains any one or combination of the following:

(1) Affected facilities
(2) Facilities for which no emission standards have been prescribed in these regulations.

SUBMERGED FILL PIPE. Any fill pipe the discharge opening of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank, or, when applied to a tank which is loaded from the side, any fill pipe the discharge opening of which is entirely submerged when at the minimum operating level.

SULFURIC ACID PLANT. Any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

SUPERPHOSPHATE. The product resulting from a controlled reaction between sulfuric acid and phosphate rock which has agronomic value.

THERMAL DRIER. A device using fuel burning equipment for the primary purpose of reducing the moisture content of materials.

TOTAL CAPACITY. With reference to fuel burning equipment and combustion installations, the sum of the rated capacities (expressed as heat input) of the existing, new and modified units of the affected facility which must be operated simultaneously under conditions of 100 percent load.

TRUE VAPOR PRESSURE. The equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, Evaporation Loss from Floating Roof Tanks, 1962.

TURNAROUND. The procedure of shutting a refinery unit down after a run to do necessary maintenance and repair work and putting the unit back on stream.

VACUUM PRODUCING SYSTEM. Any reciprocating, rotary, or centrifugal blower or compressor, or any jet ejector or device that takes suction from a pressure below atmospheric and discharges against atmospheric pressure.

VAPOR PRESSURE. Except where specific test methods are specified, vapor pressure shall mean true vapor pressure, whether measured directly, or determined from Reid vapor pressure by use of the applicable API Nomograph.

VAPOR TIGHT. Capable of holding an initial 4 oz. (6.9 in H_2O) vacuum for five minutes without dropping below 2.5 oz. (4.3 in H_2O).

VARIANCE. The temporary deferral of compliance for an owner or other person subject to these regulations, or a temporary change to these regulations as it applies to an owner or other person.

VINYL COATING. Applying a decorative or protective topcoat, or printing on vinyl coated fabric or vinyl sheets.

VIRGINIA AIR POLLUTION CONTROL LAW. Title 10, Chapter 1.2 of the Code of Virginia (1950), as amended.

VOLATILE ORGANIC COMPOUND. Any organic compound which has a vapor pressure of .0019 pounds per square inch absolute or greater at standard conditions.

WASTEWATER SEPARATOR. Any single or multiple compartment equipment which is designed to physically separate and remove any volatile organic compound floating on or entrained or contained in water entering such equipment from such water prior to outfall, drainage, or recovery of such water.

WELFARE. Language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well being.

2.700 Procedures

2.701 Regulations

(a) Establishment

Regulations for the control and abatement of air pollution are adopted, amended, or repealed only after:

(1) Thorough study of the need and technical requirements by the Staff of the Board and, when required, by the State Technical Advisory Committee on Air Pollution.

(2) Public hearing.

(3) Thorough study of comments made by the public.

(4) Adoption by the Board at a public meeting.

(b) Effective Date

No regulation, rule, amendement, or repeal will become effective until sixty days after adoption by the Board.

(c) Enforcement of Regulations

(1) Whenever the Control Officer or his representative has reason to believe that a violation of any of the Regulations promulgated by the Board has occurred, notice shall be served on the alleged violator or violators, citing the Regulation involved and the facts on which the notice is based, and shall order that necessary corrective action be taken within a reasonable time. Such corrective action shall mean the cessation of the violation, or an agreement to proceed under an approved control program, or an application to the Board for a variance, or a combination of these actions as directed by the Executive Secretary. The Executive Secretary may act as the agent of the Board to obtain legal remedy should any owner fail to comply with such an order, pursuant to Sec. 10-17.23 of the Code of Virginia.

(2) Nothing in this section shall prevent the Control Officer from making efforts to obtain voluntary compliance through conference, warning, or other appropriate means.

(d) Special Orders

The Board shall have the power to issue Special Orders pursuant to Sec. 10-17.18:1 of the Code of Virginia, as amended.

(e) Hearings

(1) Hearings by the Board may take either of the following forms:

(i) The public hearing required before considering rules and regulations or before considering variances in accordance with Sec. 10-17.18(b) and (c) of the Code of Virginia of 1950 as amended.

A public hearing may be held in connection with a regular or special meeting of the Board. The procedure for a public hearing shall conform to Sec. 9-6.6 except as modified by Sec. 10-17.18(b) and (c) of the Code of Virginia, as amended.

(ii) The formal hearing for the determination of violations and the enforcement or review of its orders, rules and regulations in accordance with Sec. 10-17.18(d) of the Code of Virginia of 1950 as amended.

A formal hearing shall be conducted as part of the business of a regular or special meeting of the Board. The procedure for a formal hearing shall conform to Sec. 9-6.10 through 9.6-12 except as modified by Sec. 10-17.18(d) of the Code of Virginia as amended.

(2) Record of the Hearings by the Board may take any of the following forms:

(i) Oral statements or testimony at any hearing may be stenographically or electronically recorded for transcription to written form.

(ii) Formal hearings will be recorded by a court reporter.

(3) Availability of Record of the Hearings by the Board

(i) A copy of the transcript of public hearing, if transcribed, will be provided within a reasonable time to any person upon written request and payment of the cost; if not transcribed, cost of preparation will be borne by person making request.

(ii) Any person desiring a copy of the transcript of formal hearings recorded by a court reporter may make arrangements directly with the court reporter to purchase such copies.

(f) Variances

Pursuant to Sec. 10-17.18(c) of the Code of Virginia of 1950, as amended, the Board may in its discretion grant local variances to any regulation adopted by the Board pursuant to Sec. 10-17.18(b) if it finds after a thorough investigation and hearing that local conditions warrant provided that:

(1) The emission occurring or proposed to occur does not endanger human health, welfare, and safety or

(2) Compliance with the regulations from which variance is sought would produce serious hardship without equal or greater benefits to the public or

(3) The emission occurring will not promote or encourage any substantial degradation of ambient air quality. Notices of public hearings on applications for variances shall be advertised at least fifteen days prior to the date of the hearing. Variances will be granted for a limited period of time -- normally such a period is not to be greater than a year. The Board may renew variances beyond one year only after a thorough investigation and a public hearing has determined that the circumstances which created a variance situation continue to exist.

2.702 Local Ordinances

(a) Ordinances

The governing body of any locality proposing to adopt an ordinance, or an amendment to an existing ordinance, relating to air pollution shall first obtain the approval of the Board as to the provisions of any such ordinance or amendment. The provisions of any such ordinance must be as strict as the State or regional regulations, whichever is applicable. The Board in approving local ordinances will consider such factors as, but not limited to,:

(1) The local ordinance must provide for intergovernmental cooperation and exchange of information.

(2) Information must be provided giving local resources which will be committed to the enforcement of the proposed local

ordinance and those resources committed must be reasonably adequate to achieve the goals for which the ordinance is designed.

Approval of any local ordinance may be withdrawn if the Board determines that the local ordinance is not as strict as State or regional regulations. Where an amendment to a State or regional regulation causes a local ordinance to be less strict a reasonable (but not more than 6 months) time will be allowed for the locality to amend its ordinance. A local governing body may grant a variance to any of its air pollution control ordinances providing a public hearing is held before doing so. Notice of public hearings on applications for variances must be advertised at least fifteen (15) days prior to the date of the hearing.

(b) Reports

Local ordinances will make provision for reporting to the Board such data as may be required in carrying out its responsibilities under the Code of Virginia of 1950, as amended, and the Clean Air Act. Such reports will include, but are not limited to: monitoring data, surveillance programs, procedures for investigation of complaints, variance hearings, and status of control programs.

(c) Relationship to State or Regional Regulations[*]

Local ordinances are a supplement to State or Regional Regulations which have been adopted, or may in the future be adopted or amended, by the Board in accordance with Section 10-17.18 and 10-17.30 of the Code of Virginia of 1950, as amended. Any provisions of local ordinances which have been approved by the Board and are more strict than the State or regional regulations shall take precedence over such regulations within the respective political subdivisions. It is the intention of the Board to coordinate activities among the enforcement officers of the various localities in the enforcement of State and regional regulations. The Board will also provide technical and other assistance to local authorities in the development of air quality or emission standards, in the investigation and study of air pollution problems, and in the enforcement of local ordinances and State and regional regulations.

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[*] Air pollution control is a problem of balancing the equities involved for the total good of the community. An ill-conceived program to control air pollutant emissions might well be more damaging than the original problem. Any regulation should be sufficiently flexible to allow each community's needs to be served; therefore, it is intended that primary enforcement of these Regional Regulations should be at the local government level.

The Board emphasizes its intention to assist in the local enforcement of local ordinances. The Board reserves the right, however, to hear appeals from any party aggrieved by any regulation, order or requirement issued with respect to State or regional regulations, conduct investigations, and issue any appropriate orders.

2.703 Registration

(a) By June 30, 1972 all persons owning and/or operating any existing point source shall have registered such source operations with the Board. The information required for registration shall be determined by the Board, and shall be provided in the manner specified by the Board.

(b) Persons owning and/or operating registered sources to be modified shall comply with Section 2.706.

2.704 Date of Compliance

Except as otherwise specified, compliance with the provisions of these regulations shall be according to the following schedule.

(a) New Point Souces. All new point sources constructed after the effective date of these regulations shall comply as of going into operation.

(b) Existing Point Sources. All existing point sources not in compliance as of the effective date of these regulations, shall be in compliance by June 30, 1972. If compliance is not possible by June 30, 1972, the owner or person responsible for the operation of the installation shall have submitted by this date to the Board in a form and manner satisfactory to the Board a control program and schedule to contain a date on or before which full compliance will be attained. In no event can this date be later than June 30, 1975. If approved by the Board, such date will be the date on which the person shall comply. The Board may require persons submitting such a program to submit periodic reports on progress in achieving compliance. Reports shall be submitted in form and manner prescribed by the Executive Secretary or his representative.

2.705 Action on Control Programs

(a) The Board shall act, and notify the owner of its actions, as early as practicable but within 90 days. Local jurisdictions are encouraged to provide the Board with their recommendation prior to consideration by the Board.

(b) The owner shall be furnished copies of any objections by the Board to the control program and may submit answers and comments, in duplicate, to the Board on such objections.

(c) The Board will consider the owner's answers and comments to any objections, and shall notify the owner in writing its reasons for conditional approval, or denial, of the control program.

(d) If a control program is denied or conditionally approved, an owner may, by filing a request within 30 days from the date he receives notice of denial or conditional approval, request a rehearing which shall be conducted as a formal hearing pursuant to Section 2.701 (e) of these regulations, from which judicial review pursuant to Virginia Code Sec. 10-17.23:2 shall be available.

2.706 Permit to Construct and/or Modify and Operate

(a) General Requirements

Commencing on the effective date of these regulations, no owner shall cause or permit the commencement of construction of a new source or modification of any source without first obtaining from the Board a permit approving the location and basic pollution control design criteria of the proposed new source or the modification of an existing source and its operation.

(b) Applications

(1) Application for authority to construct or modify and to operate shall be made in the following manner. If the applicant is a partnership, other than a corporation, a general partner shall sign the application. If the applicant is a corporation, association, or cooperative, an officer shall sign the application. If the applicant is a sole proprietorship, the proprietor shall sign the application.

(2) A separate application is required for each source subject to these regulations. The applicant may be required to furnish additional information deemed necessary by the Board.

(3) Each application shall be signed under oath.

(c) Information Required

(1) Each application for permit to construct or modify and to operate a source shall include such information as may be required by the Board to analyze the effect of the proposed source on the ambient air quality standard of the area and the emission standards which are applicable. The information required would include not less than (but is not limited to) the following:

   (i) siting information

   (ii) general description of plant or modifications

   (iii) complete information regarding proposed air pollution control facilities, and an inventory of type and quantity of contaminants to be emitted.

(d) Standards for Granting Permit

No permit to construct or modify and to operate will be granted unless the applicant shows to the satisfaction of the Board that;

(1) The source will be designed and will be constructed or modified to operate without causing a violation of the applicable regulations.

(2) The source will be designed, built and equipped in accordance with established Federal Standards of Performance, or if none are applicable, with standards of performance established by the Board.

(3) The source, as designed or modified, does not endanger maintenance or attainment of any applicable ambient air quality standard.

(4) The source, if required by the Board, shall be provided with:

   (i) sampling ports of a size, number, and location as the Board may specify,

   (ii) safe access to each port,

   (iii) instrumentation to monitor and record emission levels,

   (iv) any other sampling and testing facilities the Board may permit or require.

(5) If the air pollution control facilities do not achieve the emission limitations stated in Sec. 2.706 (e) temporary operation and corrections will be in accordance with Sec. 2.706 (f) (2).

(e) Action on Permit Applications

The actions of the Board shall include:

(1) Confirmation with Section 2.705

(2) Stating in its written approval to the applicant the emission limitations acceptable to it during performance testing in accordance with Section 2.706 (f).

(f) Performance Testing and Compliance

(1) Within 60 days after placing a new or modified source into operation, the owner shall schedule tests of the emissions in the manner acceptable to the Board. These tests may be witnessed by a representative of the Board.

(2) In case the performance does not meet the emission limitation specified in Section 2.706 (e) (2) until the performance is corrected to meet the specified limits. Variation from the specified emission limitation may be granted by the Executive Secretary or his representative for a finite period for testing and adjustment.

(g) Exceptions

A permit to construct and operate will not be required for:

(1) The installation or alteration of an air contaminant detector, air contaminant recorder, combustion controller, or combustion shutoff controls.

(2) Air conditioning or ventilating systems not designed to remove air contaminant generated by or released from such equipment.

(3) Low capacity fuel burning equipment, such as: process smoke house generators; devices that use gas as a fuel for space heating with a BTU input of less than 350,000 BTU per hour; or heating devices using gas or oil fuel for space heating with a BTU input of less than 1,000,000 BTU per hour, air conditioning, or heating water; or heating devices used in a private dwelling with a BTU input of less than 1,000,000 BTU per hour.

(4) Internal combustion engines under 3000 H.P.

(5) Laboratory equipment used exclusively for chemical or physical analysis.

(6) Other sources of minor significance specified by the Board.

(h) Suspension or Revocation of Permit

(1) The Board may, after a formal hearing pursuant to Sec. 2.701 (e) (ii) of the regulations, suspend or revoke a permit for failure to comply with the terms of the permit.

(2) Suspension or revocation of a permit to operate shall become effective upon actual receipt of the suspension or revocation of the permit by the Board by the holder of the permit.

2.707 Monitoring, Records, Reporting

(a) The Board may require the owner or operator of any source to: install, use, and maintain monitoring equipment and sample the emission in accordance with methods approved by the Board; and maintain records and make periodic emission reports as required in Sec. 2.707 (b).

(b) Records and reports, as the Board shall prescribe, pertaining to air contaminants or fuel, shall be recorded, compiled, and submitted on forms furnished by the Board.

2.708 Sampling and Testing Methods

(a) All tests shall be made and the results calculated in accordance with test procedures approved by the Board. All tests shall be made under the direction of persons qualified by training and/or experience.

(b) The Board may test emissions of air contaminants from any source. Upon request of the Board the person responsible for the source to be tested shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants. This requirement shall be in addition to Section 2.707.

2.709 Reporting of Control Equipment Maintenance or Malfunction

(a) In case of shutdown and/or bypassing of air pollution control equipment for necessary scheduled maintenance, the intent to shutdown such equipment shall be reported to the Executive Secretary or his representative and local air pollution control agency, if any, at least twenty-four (24) hours prior to the planned shutdown. Such prior notice shall include, but is not limited to, the following:

(1) Identification of the specific facility to be taken out of service as well as its location and permit and/or registration number.

(2) The expected length of time that the air pollution control equipment will be out of service.

(3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period.

(4) Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage of the air pollution control equipment.

(b) In the event that any emission source air pollution control equipment, or related facility, fails in a manner that may cause an increase in the emission of air contaminants in violation of applicable regulations of the Board, the person responsible for such equipment shall immediately notify the Executive Secretary or his representative by telephone of such failure or breakdown and provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. When the condition causing the failure or breakdown has been corrected and the equipment is again in operation, the Executive Secretary or his representative shall be notified.

(c) Nothing in the Section 2.709 (a) and (b) shall be construed as giving an owner the right to temporarily increase the emission of contaminants or to use as a means of circumventing the emission standards otherwise provided in these regulations.

2.710 Circumvention

No owner shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would other wise violate these regulations (this section does not prohibit the construction of a stack or chimney).

2.711 Severability

If any provision of these regulations or the application thereof to any person or circumstances is held to be invalid, such invalidity shall not affect other provisions or application of any other part of these regulations which can be given effect without the invalid provisions of application, and to this end the provisions of these regulations and the various applications thereof are declared to be severable.

3.700 AIR QUALITY STANDARDS

3.701 General Provisions.

(a) Air quality standards are required to assure that ambient concentrations of air contaminants are consistent with established criteria and shall serve as the basis for effective and reasonable management of the air resources of the Commonwealth of Virginia.

(b) At such time as additional pertinent information becomes available with respect to applicable air quality criteria, such information shall be considered and the air quality standards revised accordingly.

(c) The absence of a specific air quality standard shall not preclude action by the Board to control contaminants to assure protection, safety, welfare, and comfort of the people of the Commonwealth of Virginia.

(d) The air quality standards established herein shall apply to all areas outside a source property line.

(e) Where applicable, all measurements of air quality shall be corrected to a reference temperature of 70 degrees F and to a reference pressure of 14.7 pounds per square inch absolute.

3.702 Particulate Matter.

(a) Air quality standards are

(1) 60 micrograms per cubic meter - annual geometric mean.

(2) 150 micrograms per cubic meter - maximum 24 hr. concentration not to be exceeded more than once per year.

(b) Particulate matter shall be determined by the high volume method as described in Appendix B, Part 410, Chapter IV, Title 42, Code of Federal Regulations, or by an equivalent method.

3.703 Sulfur Oxides (Sulfur Dioxide)

(a) Air quality standards are

(1) 80 micrograms per cubic meter (0.30 ppm) - annual arithmetic mean.

    (2) 365 micrograms per cubic meter (0.14 ppm) - maximum 24 hr. concentration not to be exceeded more than once per year.

    (3) 1,300 micrograms per cubic meter (0.50 ppm) - maximum 3 hr. concentration not to be exceeded more than once per year.

(b) Sulfur dioxide shall be measured by the pararosaniline method as described in Appendix A, Part 410, Chapter IV, Title 42, Code of Federal Regulations, or by an equivalent method.

3.704 Carbon Monoxide.

(a) Air quality standards are

    (1) 10 milligrams per cubic meter (9 ppm) - maximum 8 hr. concentration not to be exceeded more than once per year.

    (2) 40 milligrams per cubic meter (35 ppm) - maximum 1 hr. concentration not to be exceeded more than once per year.

(b) Carbon monoxide shall be measured by the nondispersive infrared spectrometry method, as described in Appendix C, Part 410, Chapter IV, Title 42, Code of Federal Regulations, or by an equivalent method.

3.705 Photochemical Oxidants.

(a) Air quality standard is

    (1) 160 micrograms per cubic meter (0.08 ppm) - maximum 1 hr. concentration not to be exceeded more than once per year.

(b) Photochemical oxidants shall be measured and corrected for interferences due to nitrogen oxides and sulfur dioxide by the method described in Appendix D, Part 410, Chapter IV, Title 42, Code of Federal Regulations, or by an equivalent method.

3.706 Hydrocarbons.

(a) Air quality standard for hydrocarbons is

    (1) 160 micrograms per cubic meter (0.24 ppm) - maximum 3 hr. concentration (6-9 AM) not to be exceeded more than once per year.

(b) Hydrocarbons shall be measured and corrected for methane by the method described in Appendix E, Part 410, Chapter IV, Title 42, Code of Federal Regulations, or by an equivalent method.

(c) The hydrocarbon air quality standard is for use as a guide in determining hydrocarbon emission control required to achieve the photochemical oxidant standard.

3.707 Nitrogen Dioxide.

(a) Air quality standard is

(1) 100 micrograms per cubic meter (0.05 ppm) - annual arithmetic mean.

(b) Nitrogen dioxide shall be measured by the method described in Appendix F, Part 410, Chapter IV, Title 42, Code of Federal Regulations, or by an equivalent method.

3.708 Dustfall.

Geometric mean of monthly values for four consecutive months at any one location shall not exceed 15 tons per square mile per month (metric equivalent: 0.525 milligrams per square centimeter per month or 5.25 grams per square meter per month) including background concentrations.

AQCR VII
SECTION IV
(Rule 701)

4.701.00 OPEN BURNING

4.701.01 Prohibition of Open Burning.

(a) No person or owner shall kindle or ignite, cause to be kindled or ignited or maintain any open fire in any public or private place outside any building except as provided in paragraph 4.701.02; however, such exceptions shall not allow the burning of rubber tires, asphaltic materials, crankcase oil, impregnated wood, or similar materials which produce dense smoke nor shall such exceptions permit any owner to conduct salvage operations by open burning.

(b) Open burning under the exceptions of paragraph 4.701.02 does not exempt or excuse a person from the consequences, damages or injuries which may result from such conduct, nor does it excuse or exempt any person from complying with all applicable laws, ordinaces, regulations, and orders of the governmental entities having jurisdiction, even though the open burning is conducted in compliance with paragraph 4.701.02.

(c) All open burning permitted under paragraph 4.701.02, Exceptions, shall be immediately terminated upon the declaration by competent authority of an air pollution episode.

4.701.02 Exceptions.

Exceptions to paragraph 4.701.01 are as follows:

(a) Open fires may be set in performance of an official duty of any public health or safety officer, after notification of State and Local Air Pollution Control Agencies, if the fire is necessary for one or more of the following reasons or purposes:

(1) for the prevention of a fire hazard which cannot be abated by other means;

(2) for the instruction of public fire fighters under the supervision of a designated Fire Marshal;

(3) for the protection of public health.

(b) Fires may be used for cooking of food, provided no smoke violation or other nuisance is created.

(c) Open fires may be set for recreational purposes, such as camp fires, provided no smoke violation or nuisance is created.

(d) Salamanders or other devices may be used for heating by construction or other workers, provided no smoke violation or other nuisance is created.

(e) In those areas where provision for public or private collection of leaves is not made, the open burning of leaves is permitted.

(f) In those areas where regular refuse collection is not available, open burning of ordinary household trash by householders is permitted, provided that:

    (1) garbage, dead animals and animal waste are not burned;

    (2) materials are not burned which create dense smoke (emissions of an opacity or darkness greater than No. 2 on the Ringelmann Smoke Chart) or objectionable odors or any other emissions which may be injurious or noxious to people or property;

    (3) no nuisance is created.

(g) Open fires may be set for operation of craft exhibits, pageants of historical significance and for ceremonial occasions.

(h) Fires may be set in the course of forest management and agricultural operations in growing crops or raising fowl or animals provided no nuisance is created.

4.701.03 Exclusions.

This rule does not apply to open burning using devices or methods specifically designed to provide good combustion performance under the following conditions:

(a) Visible emissions shall comply with Section 4.702.00 (Rule 702).

(b) All devices or methods under this Section 4.701.03 shall be approved by the Executive Secretary or his representative and local air pollution control agency, if any, prior to installation.

AQCR VII
SECTION IV
(Rule 706)

4.706.00 ODOR

4.706.01 Scope.

This regulation shall apply to all operations that produce odorous emissions.

4.706.02 Prohibition of Objectionable Odor.

No person shall cause, suffer, allow or permit any source to discharge air contaminants which cause an objectionable odor without employing adequate measures for the control of odorous emissions, as may be approved by the Board.

4.706.03 Determination of Violation

The determination of objectionable odor is to be made after a thorough review of all data or evidence relating to the situation which may be obtained by an investigation directed by the Executive Secretary, and by holding a public hearing to hear complaints as prescribed in these regulations. The investigation may include use of an odor panel survey and/or other methods approved by the Board.

4.706.04 Exception.

This Rule is not intended to be applied to accidental or other infrequent emissions of odors.

VIRGINIA STATE REGULATIONS EXCEPT NATIONAL CAPITAL AIR QUALITY CONTROL REGION

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

PART I

DEFINITIONS

1.01 GENERAL

(a) For the purpose of these regulations and subsequent amendments or any orders issued by the Board, the words or terms shall have the meanings indicated in Section 1.02.

(b) Unless specifically defined in the Virginia Air Pollution Control Law or in these regulations, terms used shall have the meanings commonly ascribed to them by recognized authorities.

(c) The terms defined in these regulations are underlined in the text to emphasize that the term has a specially defined meaning.

1.02 TERMS DEFINED

ACTUAL HEAT INPUT. The sum of the actual heat input of all existing, new and modified fuel burning equipment which is operating during any specified period at a facility.

ADMINISTRATIVE PROCESS ACT. Title 9, Chapter 1.1.1 of the Code of Virginia (1950), as amended.

AFFECTED FACILITY. With reference to a stationary source, any apparatus process or operation to which an emission standard is applicable.

AIRCRAFT OPERATION. An aircraft takeoff or landing.

AIR POLLUTION. The presence in the outdoor atmosphere of one or more substances which are or may be harmful or injurious to human health, welfare or safety; to animal or plant life; or to property; or which unreasonably interfere with the enjoyment by the people of life or property.

AIR POLLUTION EPISODE. A situation which is declared by responsible authorities as set forth in Part VII when weather and/or air pollution conditions indicate a potential threat to human health.

AIR QUALITY. The specific measurement in the ambient air of a particular air pollutant at any given time.

AIR QUALITY CONTROL REGION. Any area designated as such in Appendix B.

AIR QUALITY MAINTENANCE AREA. Any area which due to current air quality and/or projected growth rate, may have the potential for exceeding any ambient air quality standard set forth in Part III within a subsequent 10-year period and designated as such in Appendix H.

AIR TABLE. A source consisting of a device using a gaseous separating medium for the primary purpose of improving product quality.

ALTERNATIVE METHOD. Any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method, but which has been demonstrated to the satisfaction of the Board to, in specific cases, produce results adequate for its determination of compliance.

AMBIENT AIR. That portion of the atmosphere external to buildings, to which the general public has access.

AMBIENT AIR QUALITY STANDARD. Any primary or secondary standard designated as such in Part III.

APPLICATION AREA. The area where the coating is applied by spraying, dipping or flowcoating techniques.

ARCHITECTURAL COATING. Coating used for residential, commercial, industrial buildings and their appurtenances.

ASPHALT. A dark-brown to black cementitious material (solid, semisolid, or liquid in consistency) in which the predominating constituents are bitumens which occur in nature as such, or which are obtained as residue in refining petroleum.

AUTOMOBILE. All passenger cars or passenger derivatives capable of seating 12 or fewer passengers.

underline "source" only

BEEHIVE COKE OVEN. A source consisting of an arched, beehive shaped, oven in which heat is supplied by partial combustion of the coal within the oven chambers and in which destructive distillation of coal occurs with no recovery of by-products.

BEST AVAILABLE CONTROL TECHNOLOGY. Best available control technology shall be determined on a case-by-case basis considering the following:

(1) The process, fuels and raw material available and to be employed in the facility involved;

(2) The engineering aspects of the application of various types of control techniques which have been adequately demonstrated.

(3) Process and fuel changes;

(4) The respective costs of the application of all such control techniques, process changes, alternative fuels, etc;

(5) Any applicable emission standards; and

(6) Locational and siting considerations.

BOARD. The State Air Pollution Control Board or its designated representative.

COAL REFUSE. Any waste coal, rock, shale, culm, boney, slate, clay or related materials, associated with or near a coal seam, which are either brought above ground or otherwise removed from the mine in the process of mining coal, or which are separated from coal during the cleaning or preparation operations, provided, however, that coal refuse shall not mean overburden from strip mining operations or rock from mine shafts and mine tunnels.

COAL REFUSE DISPOSAL AREA. Any source or potential source consisting of any area or plot of land used as a place for dumping, storage or disposal of coal refuse. A coal refuse pile must be contained in a single coal refuse disposal area; however, a coal refuse disposal area may contain two or more coal refuse piles if the area is so designated.

COAL REFUSE PILE. Any source consisting of any deposit of coal refuse on or buried in the earth and intended for permanent disposal of or long-term storage of such material. Continuous deposits of coal refuse and deposits not separated by an approved method shall be considered as a single coal refuse pile.

COATING APPLICATOR. An apparatus used to apply a surface coating.

COATING LINE. One or more apparatus or operations comprised of a coating applicator, flash-off area and oven wherein a surface coating is applied, dried, and/or cured.

COIL COATING. The coating of any flat metal sheet or strip that comes in rolls or coils.

COLD CLEANING. The batch process of cleaning and removing foreign matter from metal surfaces by spraying, brushing, flushing, or immersion while maintaining the solvent below its boiling point. Wipe cleaning is not included in this definition.

COMBUSTION INSTALLATION. A source consisting of any furnace, oven, kiln, incinerator, fuel burning equipment or any other stationary equipment in which solid, liquid or gaseous materials are burned.

COMMENCE.

(1) For Highway Project Indirect Sources

Means when the location and/or design is approved which authorizes the beginning of right-of-way acquisition. Such approval must be made by the State Highways and Transportation Commission or other governmental entity having the authority for final project funding approval.

(2) For Stationary Sources and all other Indirect Sources

Means when a continuous program of onsite construction or

BULK GASOLINE PLANTS. A secondary distribution point for delivering gasoline to local farms, businesses, service stations, and other distribution points, where the total gasoline throughput is 20,000 gallons or less per working day, based on the daily average for the most recent 12-month period.

BULK GASOLINE TERMINALS. A primary distribution point for delivering gasoline to bulk plants, service stations, and other distribution points, where the total gasoline throughput is greater than 20,000 gallons per working day, based on the daily average for the most recent 12-month period.

BY PRODUCT COKE PLANT. A source consisting of a plant, oven, or device used in connection with the distillation process to produce coke. Such plant consists of, but is not limited to, coal and coke handling equipment, by-product chemical plant and other equipment associated with and attendant to the coking chambers or ovens making up a single battery operated and controlled as a single unit.

CAPACITY FACTOR. The ratio of the average load on a machine or equipment for the period of time considered to the capacity rating of the machine or equipment.

CAPITAL EXPENDITURE. An expenditure for a physical or operational change to a facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service Publication 534 and the affected facility's basis, as defined by Section 1012 of the Internal Revenue Code.

CHEMICAL FERTILIZER. A compound or mixture, whose chief ingredients are nitrogen, phosphorous, potassium or any combination of these ingredients, which has agronomic value.

COAL PREPARATION PLANT. A source consisting of, but not limited to, coal crushing, screening, washing, drying and air separation operations used for the purpose of preparing the product for marketing.

modification, including site clearance, grading, dredging or land filling specifically designed for a source in preparation for the construction or modification of the source is undertaken, or a contractual obligation is made to undertake, to be completed within a reasonable time. For the purpose of this definition, interruptions resulting from acts of God, strikes, litigation or other matters beyond the control of the owner shall be disregarded in determining whether a construction or modification program is continuous.

CONDENSATE. A hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

CONSENT AGREEMENT. An agreement that the owner will perform specific actions for the purpose of diminishing or abating the causes of air pollution or for the purpose of being in compliance with these regulations, as mutually agreed to by such owner and the Board.

CONSENT ORDER. A consent agreement issued as an order. Such orders may be issued without a hearing.

CONSTRUCTION. Fabrication, erection or installation of an affected facility or indirect source.

CONTINUOUS MONITORING SYSTEM. The total equipment used to sample and condition (if applicable), to analyze, and to provide a permanent continuous record of emissions or process parameters.

CONTROL PROGRAM. A plan submitted to the Board voluntarily or upon request or order of the Board, by the owner of a stationary source, to establish pollution abatement goals and compliance schedules to achieve such goals so as to ensure compliance by the owner with standards, policies and regulations adopted by the Board. The plan shall include such system and equipment information and projected operating performance as is required by the Board for evaluation of the probability of achieving goals of the plan. A control program shall contain the following increments of progress:

(1) Date by which contracts for emission control system or process modifications will be awarded; or date by which orders will be issued for the purchase of component parts to accomplish emission control or process modification:

(2) Date of initiation of on-site construction or installation of emission control equipment or process change;

(3) Date by which the on-site construction or installation of emission control equipment or process modification is to be completed; and

(4) Date by which final compliance is to be achieved.

CONVEYORIZED DEGREASING. The continuous process of cleaning and removing foreign matter from metal surfaces by operating with either cold or vaporized solvents.

CRITERIA POLLUTANT. Pollutants for which ambient air quality standards are prescribed under Part III.

CRUDE OIL. A naturally occurring mixture which consists of hydrocarbons and/or sulfur, nitrogen and/or oxygen derivatives of hydrocarbons, and which is a liquid at standard conditions.

CUSTODY TRANSFER. The transfer of produced crude oil and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

CUTBACK ASPHALT. Asphalt cement which has been liquefied by blending with petroleum solvents (diluents). Upon exposure to atmospheric conditions the diluents evaporate, leaving the asphalt cement to perform its function.

DAY. A 24-hour period beginning at midnight.

DELAYED COMPLIANCE ORDER. Any order of the Board issued after an appropriate hearing to an owner which postpones the date by which a stationary source is required to comply with any requirement contained in the applicable State Implementation Plan.

EFFLUENT WATER SEPARATOR. Any source consisting of any tank, box, sump or other container in which any volatile organic compound floating on or entrained or contained in water entering such tank, box, sump or other container is physically separated and removed from such water prior to outfall, drainage or recovery of such water.

EMERGENCY. A situation that immediately and unreasonably affects, or has the potential to immediately and unreasonably affect, public health, safety or welfare; the health of animal or plant life; or property, whether used for recreational, commercial, industrial, agricultural or other reasonable use.

EMERGENCY SPECIAL ORDER. Any order of the Board issued in a state of emergency without a hearing to owners who are permitting or causing air pollution, to cease such pollution. Such orders shall become invalid if an appropriate hearing is not held within 10 days after the effective date.

EMISSION STANDARD. Any provision of Parts IV, V and VI prescribing an emission limitation or level of opacity, prescribing equipment or fuel specifications, or other requirements that result in control of air pollution emissions.

EMULSIFIED ASPHALT. An emulsion of asphalt cement and water which contains a small amount of an emulsifying agent; a heterogenous system containing two normally immiscible phases (asphalt and water) in which the water forms the continuous phase of the emulsion, and minute globules of asphalt form the discontinuous phase.

EQUIVALENT METHOD. Any method of sampling and analyzing for an air pollutant which has been demonstrated to the satisfaction of the Board to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

EXCESS EMISSIONS. Emissions of an air pollutant in excess of an emission standard.

EXECUTIVE DIRECTOR. The Executive Director of the State Air Pollution Control Board or his designated representative.

EXISTING SOURCE. Any stationary source other than a new source or modified source.

FABRIC COATING. The coating of a textile substrate by knife, roll or rotogravure coating to impart properties that are not initially present, such as strength, stability, water or acid repellancy, or appearance.

FACILITY. Something that is built, installed or established to serve a particular purpose; includes, but is not limited to, buildings, installations, public works, businesses, commercial and industrial plants, shops and stores, heating and power plants, apparatus, processes, operations, structures and equipment of all types.

FEDERAL CLEAN AIR ACT. 42 USC 1857 et. seq. 84 Stat. 1676.

FIREBOX. The chamber or compartment of a boiler or furnace in which materials are burned but does not mean the combustion chamber of an incinerator.

FIXED CAPITAL COST. The capital needed to provide all the depreciable components.

FLASHOFF AREA. The space between the application area and the oven.

FLY ASH. Particulate matter capable of being gas-borne or airborne and consisting of fused ash and partially burned or unburned fuel or other material from a combustion installation.

FOSSIL FUEL-FIRED STEAM GENERATOR. A furnace and/or boiler used in the process of burning fossil fuel for the primary purpose of producing steam by heat transfer.

FOUNDRY CUPOLA. A shaft type furnace used for melting of metals, consisting of, but not limited to, furnace proper, tuyeres, fans or blowers, tapping spout, charging equipment, gas cleaning devices and other auxiliaries.

FOUNDRY OPEN HEARTH. A furnace in which the melting and refining of metal is accomplished by the application of heat to a saucer type or shallow hearth in a closed chamber, consisting of, but not limited to, the furnace proper, checkers, flues, stacks and other auxiliaries.

FREEBOARD HEIGHT.

(1) For cold cleaners, the distance from the liquid solvent level in the degreaser tank to the lip of the tank.

(2) For open top vapor degreasers, the distance from the solvent vapor level in the tank to the lip of the tank.

FREEBOARD RATIO. The freeboard height divided by the width of the degreaser.

FUEL BURNING EQUIPMENT. Any furnace, with all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat to be utilized by indirect heat transfer or producing power.

FUGITIVE DUST. Solid airborne particulate matter or dust emitted from any source other than a flue, stack or open burning.

FUMES. Minute particulate matter generated by the condensation of vapors from solid matter after volatilization from the molten state, or generated by sublimation, distillation, calcination or chemical reaction when these processes create airborne particles.

GASOLINE. Any petroleum distillate having a Reid vapor pressure of 4 pounds or greater.

GASOLINE DISPENSING FACILITY. Any site where gasoline is dispensed to motor vehicle gasoline tanks from stationary storage tanks.

HAZARDOUS AIR POLLUTANT. An air pollutant to which no ambient air quality standard is applicable and which may cause,or contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness.

HEAT INPUT. The total gross calorific value of all fuels burned.

HIGHWAY PROJECT. A proposal to develop all or a portion of a highway section which would result in a specific construction contract.

HIGHWAY SECTION. A portion of an existing or proposed highway extending between logical termini (major crossroads, population centers, major traffic generators or similar major highway control elements) as normally included in a single location study or multi-year highway improvement program as set forth in 23 CFR 770.201 (38 FR 31677, November 16, 1973).

HOT WELL. The reservoir of a condensing unit receiving the warm condensate from the condenser.

HYDROCARBON. An organic compound containing only carbon and hydrogen.

INCINERATOR. Any furnace used in the process of burning waste for the primary purpose of destroying matter and/or reducing the volume of the waste by removing combustible matter.

INDIRECT SOURCE. A facility, building, structure or installation which, when completed, will attract or may attract mobile source activity that results in emissions of a pollutant. Such indirect sources include, but are not limited to:

(1) Highways and roads

(2) Parking facilities

(3) Retail, commercial and industrial facilities

(4) Recreation, amusement, sports and entertainment facilities.

(5) Airports

(6) Office and Government Buildings

(7) Apartment and condominium buildings

(8) Education facilities

ISOKINETIC SAMPLING. Sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

KNIFE COATING. The application of a coating material to a substrate by means of drawing the substrate beneath a knife that spreads the coating evenly over the full width of the substrate.

LARGE APPLIANCE. Residential and commercial washers, dryers, ranges, refrigerators, freezers, water heater, diswashers, trash compactors, air conditioners and other similar metal products. Includes door cases, lids, panels, and interior metal support parts.

LIGHT DUTY TRUCKS. Any motor vehicles rated at 8500 pounds gross vehicle weight or less which are designed primarily for purposes of transportation of property or are derivatives of such vehicles; includes pick-ups, vans and window vans.

LIQUID ORGANIC COMPOUND. Any organic compound which is a liquid at standard conditions.

LOADING FACILITY. Any aggregation or combination of loading equipment for volatile organic compounds which is both possessed by one owner and located so that all the organic liquid loading outlets for such aggregation or combination of loading equipment can be encompassed within any circle of 300 feet in diameter. This includes all stationary dispensing stations handling volatile organic compounds.

LOCALITY. A city, town, county or other public body created by or pursuant to State Law.

LOWEST ACHIEVABLE EMISSION RATE. For any stationary source, that rate of emissions which reflects the most stringent emission limitation which is contained in the state implementation plan of any state for such class or category of source, unless the owner of the proposed source demonstrates that such limitations are not achievable, or the most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent.

MAGNET WIRE COATING. The process of applying a coating, electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

MAJOR STATIONARY SOURCE. Any stationary source which has the potential to emit, one hundred tons per year or more of any air pollutant.

MALFUNCTION. Any sudden failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner.

MANUFACTURING OPERATION. Any source consisting of any process or combination of physically connected dissimilar processes which is operated to effect physical and/or chemical changes in an article.

MATERIALS HANDLING EQUIPMENT. Any source consisting of any equipment used as a part of a process or combination of processes which does not effect a physical or chemical change in the material or in an article, such as, but not limited to, conveyors, elevators, feeders or weighers.

MELT TIME. The time in which the metal is melting and available at the spout or tap hole, excluding any time the equipment is idle, preheating or preparing for shutdown.

METAL FURNITURE COATING. The surface coating of any furniture made of metal or any metal part which will be assembled with other metal, wood, fabric, plastic or glass parts to form a furniture piece.

MIST. A state of atmospheric obscurity produced by suspended liquid droplets.

MOBILE SOURCES. Any vehicle, including, but not limited to, any motor vehicle (automobile, truck, bus, etc.), or other landcraft; airplane or other aircraft; locomotive, or other rail vehicle; ship, boat or other watercraft; which emits or may emit any air pollutant.

MODIFICATION (INDIRECT SOURCE). Any physical or structural change in an indirect source which increases or may increase the mobile source activity associated with such indirect source.

MODIFICATION (MAJOR STATIONARY SOURCE). Any modification to a stationary source which increases the potential rate of any air pollutant (including any not previously emitted and taking into account all accumulated increases in potential emissions occurring at the source since August 7, 1977, or since the time of the last permit issued to the source pursuant to Section 2.33, whichever time is more recent, regardless of any emission reductions achieved elsewhere in the source) by 100 tons per year or more.

MODIFICATION (STATIONARY SOURCE). Any physical change in, or change in the method of operation of, an affected facility which increases the amount of any air pollutant emitted into the atmosphere by that facility or which results in the emission of any air pollutant into the atmosphere not previously emitted, except that the following shall not, by themselves, be considered modifications under this definition:

(1) Maintenance, repair and replacement which the Board determines to be routine for a source type.

(2) An increase in production rate of a facility, if that increase can be accomplished without a major capital expenditure on the stationary source containing that facility.

(3) An increase in the hours of operation.

(4) Use of an alternative fuel or raw material if, prior to the date any provision of these regulations becomes applicable to that source type, the affected facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if provisions for that use were included in the final construction specifications. Conversion to coal required for energy considerations, as stipulated in Section 119(d)(5) of the Federal Clean Air Act, shall not be considered a modification.

(5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Board considers to be less efficient.

(6) The change in ownership of a facility.

MODIFIED SOURCE. Any source, either stationary, indirect or any combination thereof, the modification of which is commenced on or after the effective date of applicable provisions of these regulations.

MONITORING DEVICE. The total equipment used to measure and record (if applicable) process parameters.

MOTOR VEHICLE. Any powered conveyance of a type normally licensed by the Virginia Division of Motor Vehicles.

NEW SOURCE. Any source, either stationary, indirect or any combination thereof, the construction or reconstruction of which is commenced on or after the effective date of applicable provisions of these regulations; any source relocated on or after the effective date of applicable provisions of these regulations.

NITRIC ACID PLANT. Any facility producing nitric acid 30 to 70 percent in strength by either the pressure or atmospheric pressure process.

NITROGEN OXIDES. All oxides of nitrogen except nitrous oxide, as measured by test methods set forth in 40 CFR Part 60.

NONATTAINMENT AREA. Any area which is shown by air quality monitoring data or, where such data are not available, which is calculated by air quality modeling (or other methods determined by the Board to be reliable) to exceed the levels allowed by the ambient air quality standard for a given pollutant, including, but not limited to, areas designed as such in Appendix K.

NON-METHANE. When used to modify volatile organic compounds (or hydrocarbons), means all volatile organic compounds (or hydrocarbons) except methane; ethane; 1,1,1, - trichloroethane (methyl chloroform); methylene chloride; and trichlorotrifluoroethane (fluorocarbon 113). Inclusion of the above compounds in this definition in effect exempts such compounds from the provisions of Sections 4.54 through 4.57. The compounds are exempted on the basis of being so inactive that they will not contribute significantly to the formation of ozone in the troposhere. However, the exemption does not extend to other properties of the exempted compounds which, at some future date, may require regulation and limitation of their use in accordance with requirements of Title I, Part A (Air Quality and Emission Limitations), Section 112 (National Emission Standards for Hazardous Air Pollutants) and Title I, Part B (Ozone Protection), Section 157 (Regulations) of the Federal Clean Air Act.

ONE-HOUR. Any period of 60 consecutive minutes.

ONE-HOUR PERIOD. Any period of 60 consecutive minutes commencing on the hour.

OPACITY. The degree to which emissions reduce the transmission of light and obscure the view of an object in the background, expressed as a percentage.

OPEN BURNING. The burning of any matter in such a manner that the resulting products of combustion from the burning are emitted directly into the atmosphere without passing through a stack, duct, or chimney.

OPEN TOP VAPOR DEGREASING. The batch process of cleaning and removing foreign matter from metal surfaces by condensing hot solvent vapor on the colder metal parts.

ORDER. Any decision or directive of the Board including special orders, emergency special orders, and orders of all types, rendered for the purpose of diminishing or abating the causes of air pollution or enforcement of these regulations. Unless specified otherwise in these regulations, orders shall only be issued after the appropriate hearing.

ORGANIC COMPOUND. Any chemical compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, metallic carbonates, and ammonium carbonate.

OVEN. A chamber within which heat is used to bake, cure, polymerize, and/or dry a surface coating.

OWNER. Any person, including bodies politic and corporate, associations, partnerships, personal representatives, trustees and committees, as well as individuals, who owns, leases, operates, controls, or supervises a source.

PAPER COATING. The coating of paper and pressure sensitive tapes regardless of substrate by knife, roll or rotogravure coating. Related wet coating process on plastic films and decorative coatings on metal foil are included in this definition.

PARTICULATE. Any finely divided solid or liquid material, other than uncombined water, as measured by the applicable reference method or an equivalent or alternative method.

PENETRATING PRIME COAT. An application of low-viscosity liquid asphalt to an absorbent surface. It is used to prepare an untreated base for an asphalt surface. The prime penetrates the base and fills the surface voids, hardens the top, and helps bind it to the overlying asphalt course. It also reduces the necessity of maintaining an untreated base course prior to placing the asphalt pavement.

PERFORMANCE TEST. A test for determining emissions from new or modified sources.

PERSON. As used in these regulations, shall have no connotation other than that customarily assigned to the term "person", but shall include bodies politic and corporate, associations, partnerships, personal representatives, trustees and committees, as well as individuals.

PETROLEUM LIQUIDS. Crude oil, condensate, and any finished or intermediate products manufactured or extracted in a petroleum refinery.

PETROLEUM REFINERY. Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants or other products through distillation of petroleum or through redistillation, cracking, rearrangement or reforming of unfinished petroleum derivatives.

PHOTOCHEMICALLY REACTIVE ORGANIC COMPOUND. Any organic compound or mixture of organic compounds with an aggregate of more than 20 percent of the total volume composed of chemical compounds classified below or which exceeds any of the following individual percentage composition limitations, referred to the total volume:

(1) A combination of hydrocarbons, alcohols, aldehydes, esters, ethers or ketones having an olefinic or cyclo-olefinic type of unsaturation: 5 percent,

(2) A combination of aromatic hydrocarbons with 8 or more carbon atoms, excluding ethylbenzene: 8 percent,

(3) A combination ofethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.

Any organic compound or mixture of organic compounds which may be classified from its chemical structure into more than one of the above groups of organic compounds shall be considered to be a member of the most reactive chemical group, that is; the group having the least allowable percentage of the total volume of organic compounds.

PHYSICALLY CONNECTED. Any combination of processes connected by materials handling equipment and designed for simultaneous complementary operation.

POLLUTANT. Any substance the presence of which in the outdoor atmosphere is or may be harmful or injurious to human health, welfare, or safety, to animal or plant life, or to property, or which unreasonably interferes with the enjoyment by the people of life or property.

POTENTIAL TO EMIT. The capability at maximum capacity to emit a pollutant in the absence of air pollution control equipment. Air pollution control equipment includes control equipment which is not, aside from air pollution control laws and regulations, vital to production of the normal product of the source or to its normal operation. Annual potential shall be based on the maximum annual rated capacity of the source, unless the source is subject to enforceable permit conditions which limit the annual hours of operation. Enforceable permit conditions on the type or amount of materials combusted or processed may be used in determining the potential emission rate of a source.

PROCESS OPERATION. Any source consisting of any method, form, action, operation or treatment of manufacturing or processing, including any storage or handling or materials or products before, during or after manufacturing or processing.

PROCESS UNIT. Any step in a manufacturing operation which results in the emission of pollutants to the atmosphere.

PROCESS WEIGHT. Total weight of all materials introduced into any source process unit which may cause any emission of pollutants. Process weight includes solid fuels charged, but does not include liquid and gaseous fuels charged or combustion air for all fuels.

PROCESS WEIGHT RATE. A rate established as follows:

(1) For continuous or long-run steady-state source operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.

(2) For cyclical or batch unit operations, or unit processes, the total weight for a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period.

PRODUCTION RATE. The weight of final product obtained per hour of operation. If the rate of product going to storage can vary, the production rate shall be determined by calculation from the feed rates of raw material.

PROPORTIONAL SAMPLING. Sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

PUBLIC COMMENT PERIOD. A time period consisting of 30 days, in which the public shall be given the opportunity to comment on an owner's new or modified source permit application information (exclusive of confidential information) and the tentative analysis of the effect of such source upon the ambient air quality and the proposed decision of the Board regarding the permit application.

RATED CAPACITY. The capacity as stipulated in the purchase contract for the condition of 100 percent load, or such other capacities as mutually agreed to by the Board and owner using good engineering judgment.

REASONABLE FURTHER PROGRESS. Annual incremental reductions in emissions of a given air pollutant (including substantial reductions in the early years following approval or promulgation of a state implementation plan and regular reductions thereafter) which are sufficient in the judgment of the Board to provide for attainment of the applicable ambient air quality standard within a specified time period.

RECONSTRUCTION. The replacement of components of an affected facility to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and

(2) It is technologically and economically feasible to meet the applicable emission standards prescribed under these regulations.

REFERENCE METHOD. Any method of sampling and analyzing for an air pollutant as described in the following EPA regulations:

(1) For ambient air quality standards. Appendices A thru F of 40 CFR Part 50 as applicable or any method that has been designated as a reference method in accordance with 40 CFR Part 53, except that it does not include a method for which a reference designation has been cancelled in accordance with 40 CFR 53.11 or 40 CFR 53.16.

(2) For emission standards in Parts IV and V; Appendix A of 40 CFR Part 60.

(3) For emission standards in Part VI: Appendix B of 40 CFR Part 60.

REFINERY FUEL GAS. Any gas which is generated by a petroleum refinery process unit and which is combusted, including any gaseous mixture of natural gas and fuel gas.

REGIONAL DIRECTOR. The Regional Director of an Air Quality Control Region or his designated representative.

REID VAPOR PRESSURE. The absolute vapor pressure of volatile crude and volatile nonviscous petroleum liquids except liquefied petroleum gases as determined by American Society for Testing and Materials, Part 17, 1973, D-322-72 (Reapproved 1977).

ROLL COATING. The application of a coating material to a substrate by means of hard rubber or metal rolls.

ROTOGRAVURE COATING. The application of a coating material to a substrate by means of a roll coating technique in which the pattern to be applied is etched on the coating roll. The coating material is picked up in these recessed areas and is transferred to the substrate.

RUN. The net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

SALVAGE OPERATION. Any source consisting of a business, trade or industry engaged in whole or in part in salvaging or reclaiming any product or material, such as, but not limited to, reprocessing of used motor oils, metals, chemicals, shipping containers or drums, and specifically including automobile graveyards and junkyards as defined in Section 33-279.3 of the Code of Virginia (1950), as amended.

SHUTDOWN. The cessation of operation of an affected facility for any purpose.

SIX-MINUTE PERIOD. Any one of the 10 equal parts of a one-hour period.

SMOKE. Small gasborne particulate matter consisting predominantly but not exclusively of carbon, ash and other material in concentrations sufficient to form a visible plume.

SOILING INDEX. A measure of the soiling properties of suspended particles in air determined by drawing a measured volume of air through a known area of Whatman No. 4 filter paper for a measured period of time (normally 2 hours) expressed by COH's/1000 linear feet.

SOLVENT. Organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents.

SOLVENT METAL CLEANING. The process of cleaning foreign matter from metal surfaces by cold cleaning or open top vapor degreasing or conveyorized degreasing.

SOURCE. Any one or combination of the following: buildings, structures, facilities, installations, articles, machines, equipment, landcraft, watercraft, aircraft, or other contrivances which contribute, or may contribute, either directly or indirectly to air pollution. Any activity by any person that contributes, or may contribute, either directly or indirectly to air pollution, including, but not limited to, open burning, generation of fugitive dust or emissions, and cleaning with abrasives or chemicals.

SPECIAL ORDER. Any order of the Board issued after an appropriate hearing:

(1) to owners who are permitting or causing air pollution, to cease and desist from such pollution;

(2) to owners who have failed to construct facilities in accordance with or have failed to comply with plans for the control of air pollution submitted by them to, and approved by the Board, to construct such facilities in accordance with or otherwise comply with, such approved plan;

(3) to owners who have violated or failed to comply with the terms and provisions of any order or directive issued by the Board, to comply with such terms and provisions;

(4) to owners who have contravened duly adopted and promulgated air quality standards and policies, to cease and desist from such contravention and to comply with such air quality standards and policies; and

(5) to require any owner to comply with the provisions of this chapter and any decision of the Board.

STACK OR CHIMNEY. Any flue, conduit or duct arranged to conduct emissions into the atmosphere.

STANDARD CONDITIONS. A temperature of 20°C (68°F) and a pressure of 760 mm of Hg (29.92 in. of Hg).

STANDARD METROPOLITAN STATISTICAL AREA. Any area designated as such in Appendix G.

STANDARD OF PERFORMANCE. Degree of air pollutant emission limitation achievable through the application of best available control technology which the Board determines has been adequately demonstrated.

STARTUP. The setting in operation of an affected facility for any purpose.

STATIONARY SOURCE. Any building, structure, facility or installation which emits or may emit any air pollutant and which contains any one or combination of the following:

(1) Affected facilities
(2) Facilities for which no emission standards have been prescribed in these regulations.

SUBMERGED FILL PIPE. Any fill pipe the discharge opening of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank, or, when applied to a tank which is loaded from the side, any fill pipe the discharge opening of which is entirely submerged when at the minimum operating level.

SULFURIC ACID PLANT. Any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

SUPERPHOSPHATE. The product resulting from a controlled reaction between sulfuric acid and phosphate rock which has agronomic value.

THERMAL DRIER. A device using fuel burning equipment for the primary purpose of reducing the moisture content of materials.

TOTAL CAPACITY. With reference to fuel burning equipment and combustion installations, the sum of the rated capacities (expressed as heat input) of the existing, new and modified units of the affected facility which must be operated simultaneously under conditions of 100 percent load.

TRUE VAPOR PRESSURE. The equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, Evaporation Loss from Floating Roof Tanks, 1962.

TURNAROUND. The procedure of shutting a refinery unit down after a run to do necessary maintenance and repair work and putting the unit back on stream.

VACUUM PRODUCING SYSTEM. Any reciprocating, rotary, or centrifugal blower or compressor, or any jet ejector or device that takes suction from a pressure below atmospheric and discharges against atmospheric pressure.

VAPOR PRESSURE. Except where specific test methods are specified, vapor pressure shall mean true vapor pressure, whether measured directly, or determined from Reid vapor pressure by use of the applicable API Nomograph.

VAPOR TIGHT. Capable of holding an initial 4 oz. (6.9 in H_2O) vacuum for five minutes without dropping below 2.5 oz. (4.3 in H_2O).

VARIANCE. The temporary deferral of compliance for an owner or other person subject to these regulations, or a temporary change to these regulations as it applies to an owner or other person.

VINYL COATING. Applying a decorative or protective topcoat, or printing on vinyl coated fabric or vinyl sheets.

VIRGINIA AIR POLLUTION CONTROL LAW. Title 10, Chapter 1.2 of the Code of Virginia (1950), as amended.

VOLATILE ORGANIC COMPOUND. Any organic compound which has a vapor pressure of .0019 pounds per square inch absolute or greater at standard conditions.

WASTEWATER SEPARATOR. Any single or multiple compartment equipment which is designed to physically separate and remove any volatile organic compound floating on or entrained or contained in water entering such equipment from such water prior to outfall, drainage, or recovery of such water.

WELFARE. Language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well being.

PART II

GENERAL PROVISIONS

2.01 APPLICABILITY

(a) The provisions of these regulations unless specified otherwise shall be applicable throughout the Commonwealth of Virginia.

(b) The provisions of these regulations unless specified otherwise shall be applicable to only those pollutants for which ambient air quality standards are set forth in Part III and/or for which emission standards are set forth in Parts IV, V and VI.

(c) No provision of these regulations shall limit the power of the Board to take such appropriate action as necessary to control and abate air pollution in emergency situations.

2.02 ESTABLISHMENT OF REGULATIONS AND ORDERS

(a) Regulations for the Control and Abatement of Air Pollution are established to implement the provisions of the Virginia Air Pollution Control Law and the Federal Clean Air Act.

(b) Regulations for the Control and Abatement of Air Pollution are adopted, amended or repealed only after:

(1) Thorough study of the need and technical requirements.

(2) Proceedings and hearings as shown below, in accordance with Section 2.04, with 30 days prior notice to the public by advertisement in at least one major newspaper of general circulation in the State Capital and the Air Quality Control Region affected:

(i) Public hearing

(ii) Informational proceeding

The above hearings and proceedings may be conducted as one process.

(3) Thorough study of comments made by the public.

(4) Adoption by the Board at a public meeting.

(5) Filing with the Registrar of Regulations.

(c) No regulation, rule, amendment or repeal will become effective until 30 days after filing with the Registrar of Regulations, except in no case shall the effective date be less than 60 days after adoption by the Board.

(d) If necessary in an emergency situation, the Board may adopt, amend or stay a rule or regulation as an exclusion under Section 9-6.14:6 of the Administrative Process Act, but such rule or regulation shall remain effective no longer than 60 days unless readopted following the requirements of paragraph (b) of this section. The provisions of this paragraph are not applicable to emergency special orders: such orders are subject to the provisions of paragraph (e) of this section.

(e) The Board shall issue Orders, Special Orders, and Emergency Special Orders pursuant to Section 10-17.18(d) or 10-17.18:1 of the Virginia Air Pollution Control Law as deemed necessary.

2.03 ENFORCEMENT OF REGULATIONS AND ORDERS

(a) Whenever the Executive Director or his designated representative has reason to believe that a violation of any provision of these regulations or any order has occurred, notice shall be served on the alleged violator or violators, citing the applicable provision of these regulations or the order involved and the facts on which the violation is based. The Executive Director or his designated representative may act as the agent of the Board to obtain compliance through either of the following enforcement proceedings:

(1) Administrative Proceedings

The Executive Director or his designated representative may negotiate to obtain compliance through administrative means. Such means may be a variance, control program, consent agreement or any other mechanism that mandates compliance by a specific date. The means and the associated date shall be determined on a case-by-case basis and shall not allow an unreasonable delay in compliance. In cases where the use of an adminsitrative means is expected to result in compliance within 90 days or less, preferential consideration shall be given to the use of a consent agreement. Unless specified otherwise in these regulations, the administrative means shall be approved by the Board.

(2) Judicial Proceedings

The Executive Director or his designated representative may obtain compliance through legal means pursuant to Section 10-17.23 or 10-17.29 of the Virginia Air Pollution Control Law.

(b) Nothing in this section shall prevent the Executive Director or his designated representative from making efforts to obtain volutary compliance through conference, warning, or other appropriate means.

(c) Orders, consent orders, special orders, and emergency special orders are considered administrative means and the Board reserves the right to use any such means in lieu of or to provide a legal basis for the enforcement of any administrative means negotiated or approved by the Exective Director or his designated representative under paragraph (a) of this section.

(d) Any enforcement proceeding under this section may be used as a mechanism to insure that the compliance status of any source is reasonably maintained by the owner.

(e) The Board may supplement any enforcement proceeding under this section with a provision for the payment of penalties by the owner as provided for in the Virginia Air Pollution Control Law.

2.04 HEARINGS AND PROCEEDINGS

(a) Hearings and proceedings by the Board may take any of the following forms:

(1) The public hearing and informational proceeding required before considering rules and regulations or variances in accordance with Section 10-17.18(b) and (c) of the Virginia Air Pollution Control Law. The procedure for a public hearing and informational proceeding shall conform to Section 9-6.14:7 of the Administrative Process Act, except as modified by Section 10-17.18(b), (c), and (h) of the Virginia Air Pollution Control Law.

(3) The informal fact finding proceeding that may, with all persons consenting, be used to ascertain facts upon which decisions of the Board are made in accordance with Section 9-6.14:11 of the Administrative Process Act. The procedure for an informal fact finding proceeding shall conform to Section 9-6.14:11 of the Administrative Process Act.

(4) The formal hearing for the determination of violations and the enforcement or review of its orders, rules and regulations in accordance with Section 10-17.18(d) of the Virginia Air Pollution Control Law. The procedure for a formal hearing shall conform to Section 9-6.14:12 of the Administrative Process Act, except as modified by Section 10-17.18(d) and (h) of the Virginia Air Pollution Control Law.

(5) The special order or emergency special order hearing for the determination of violations and the enforcement or review of its orders, rules and regulations in accordance with Section 10-17.18:1 of the Virginia Air Pollution Control Law. The procedure for the special order or emergency special order hearing shall conform to Section 9-6.14:12 of the Administrative Process Act, except as modified by Section 10-17.18:1 of the Virginia Air Pollution Control Law.

(b) Record of the Hearings by the Board may take either of the following forms:

(1) Oral statements or testimony at any hearing will be stenographically or electronically recorded and may be transcribed to written form.

(2) Hearings for the issuance of special orders, emergency special orders and formal hearings will be recorded by a court reporter or electronically recorded for transcription to written form.

(c) Availability of Record of the Hearings by the Board

(1) A copy of the transcript of public hearing, if transcribed, will be provided within a reasonable time to any person upon written request and payment of the cost; if not transcribed, cost of preparation will be borne by the person making the request.

(2) Any person desiring a copy of the transcript of special order, emergency special order and formal hearings recorded by a court reporter may make arrangements directly with the court reporter to purchase such copies; if not transcribed, cost of preparation will be borne by the person making the request.

2.05 VARIANCES

(a) General

(1) Pursuant to Section 10-17.18(c) of the Virginia Air Pollution Control Law, the Board may in its discretion grant variances to any provision of these regulations after a public hearing in accordance with Section 2.04(a)(1). When acting upon variances, the Board shall be guided by the provisions of Sections 10-17.18(e) and (f) of the Virginia Air Pollution Control Law.

(2) Notices of public hearings on applications for variances shall be advertised in at least one major newspaper of general circulation in the Air Quality Control Region affected at least 30 days prior to the date of the hearing.

(b) Fuel Variance

(1) Notwithstanding anything to the contrary appearing in this section, the Executive Director may grant a fuel variance for fuel burning equipment from applicable provisions of these regulations if he finds after a thorough investigation and public hearing:

(i) That the owner has attempted, in good faith and prior to the request for the fuel variance, to comply with applicable provisions of these regulations.

(ii) That the owner has substantial cause to believe he will be unable to obtain such fuel as would allow the operation of the source in compliance with applicable provisions of these regulations.

(iii) That the maximum particulate and sulfur emissions from fuels permitted in the fuel variance would be as a practical matter the lowest that the availability of fuels will permit.

(iv) That a state of urgency exists for the source for which the fuel variance is requested which could not have been avoided by the said owner.

(v) That the period of the fuel variance will not exceed the reasonably predicted period of unavailability of fuel which would allow compliance with applicable provisions of these regulations or 120 days, whichever is less.

(2) The owner requesting the fuel variance shall submit to the Executive Director the following, where appropriate:

(i) The requested commencement and termination dates of the fuel variance.

(ii) The type of fuel to be used under the requested fuel variance, the quantity involved, and the maximum ash and sulfur content, if any.

(iii) An affidavit stating why the owner is unable to or has substantial cause to believe that he will be unable to obtain fuel which would allow compliance with applicable provisions of these regulations.

(iv) An estimate of the amount of fuel to be conserved.

(v) An estimate of the increased air pollutants that might cause violations of the ambient air quality standards.

(vi) An estimate, with reasons therefor, of the duration of the shortage of fuel which would allow compliance with applicable provisions of these regulations.

(vii) Such other information as the Executive Director may require to make his findings in paragraph (b) (1) of this section.

(3) Notice of public hearings on applications for fuel variances shall be advertised at least 10 days prior to the date of the hearing, in at least one major newspaper of general circulation in the Air Quality Control Region in which the affected source is located.

(4) Fuel variances may be granted only for individual sources, and not categories or classes.

(5) No fuel variance shall be granted for a period in excess of 120 days. Any request for a variance for a period beyond 120 days shall be governed by the provisions of paragraph (a) of this section, except that the Board where appropriate, may require compliance with any of the conditions and requirements herein.

(6) Nothing in this paragraph shall be construed to limit, alter or otherwise affect substantially or procedurally the obligation of any owner or other person to comply with any provision of these regulations not specifically affected by this paragraph.

2.06 LOCAL ORDINANCES

(a) Establishment/Approval

(1) The governing body of any locality proposing to adopt an ordinance, or an amendment to an existing ordinance, relating to air pollution shall first obtain the approval of the Board as to the provisions of such ordinance or amendment. The Board in approving local ordinances will consider such criteria as, but not limited to the following:

(i) The local ordinance shall provide for intergovernmental cooperation and exchange of information.

(ii) Information shall be provided showing local resources which will be committed to the enforcement of the proposed local ordinance and that those resources committed shall be reasonably adequate to achieve the purpose for which the ordinance is designed.

(iii) The provisions of the local ordinance shall be as strict as state regulations, except as provided for leaf burning in Section 10-17.18(b) of the Virginia Air Pollution Control Law.

(2) Approval of any local ordinance shall be withdrawn if the Board determines that the local ordinance is not as strict as State regulations or the locality fails to enforce the ordinance.

(3) Where an amendment to State regulations causes a local ordinance to be less strict, a reasonable (but not more than 6 months) time will be allowed for the locality to amend its ordinance.

(b) Reports

Local ordinances shall make provision for reporting to the Board such information as may be required in carrying out its responsibilities under the Virginia Air Pollution Control Law and the Federal Clean Air Act. Such reports shall include, but are not limited to: monitoring data, surveillance programs, procedures for investigation of compliants, variance hearings and status of control programs and permits.

(c) Relationship to State Regulations

Local ordinances are a supplement to State regulations. Any provisions of local ordinances which have been approved by the Board and are more strict than State regulations shall take precedence over State regulations within the respective locality. It is the intention of the Board to coordinate activities among the enforcement officers of the various localities in the enforcement of local ordinances and State regulations. The Board will also provide technical and other assistance to local authorities in the development of ambient air quality or emission standards, in the investigation and study of air pollution problems, and in the enforcement of local ordinances and State regulations. The Board emphasizes its intention to assist in the local enforcement of local ordinances. If a locality fails to enforce its own ordinance, the Board reserves the right to enforce State regulations.

(d) Variances

A local governing body may grant a variance to any provision of its air pollution control ordinance(s) provided that:

(1) A public hearing is held prior to granting the variance.

(2) The public is notified of the application for a variance by advertisement in at least one major newspaper of general circulation in the locality affected at least 30 days prior to the date of the hearing.

(3) The variance does not permit any owner or other person to take action that would result in a violation of any provision of State regulations unless a variance from the such provision of the State regulations is granted by the Board. The public hearings required for the variances to the local ordinance and State regulations may be conducted jointly as one proceeding.

2.07 CIRCUMVENTION

No owner or other person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air pollutants emitted, conceals or dilutes an emission of air pollutants which would otherwise violate these regulations. This section does not prohibit the construction of a stack or chimney.

2.08 SEVERABILITY

If any provision of these regulations or the application thereof to any person or circumstances is held to be invalid, such invalidity shall not affect other provisions or application of any other provision of these regulations which can be given effect without the invalid provisions or application, and to this end the provisions of these regulations and the various applications thereof are declared to be severable.

2.09 APPEALS

(a) Any owner or other person aggrieved by any action of the Board taken without a formal hearing, or by inaction of the Board, may demand a formal hearing in accordance with Section 9-6.14:12 of the Administrative Process Act, provided a petition requesting such hearing is filed with the Board. In cases involving actions of the Board, such petition shall be filed within 30 days after notice of such action is mailed or delivered to such owner or other person.

(b) Prior to any formal hearing, the Board shall, provided all parties consent, ascertain the fact basis for its decision in accordance with Section 9-6.14:11 of the Administrative Process Act.

(c) Any decision of the Board resultant from a formal hearing shall constitute the final decision of the Board.

(d) Any owner or other person aggrieved by a final decision of the Board may appeal such decision in accordance with Section 10-17.23:2 of the Virginia Air Pollution Control Law and Section 9-6.14:16 of the Administrative Process Act.

(e) Nothing in this section shall prevent disposition of any case by consent.

2.10 RIGHT OF ENTRY

Whenever it is necessary for the purposes of these regulations the Board may at reasonable times enter any establishment or upon any property, public or private, for the purpose of obtaining information or conducting surveys or investigation as authorized by Section 10-17.22, of the Virginia Air Pollution Control Law.

2.11 CONDITIONS ON APPROVALS

(a) The Board may impose such conditions upon permits and other approvals as may be necessary to accomplish the goals and objectives of the Virginia Air Pollution Control Law, and as are not inconsistent with these regulations. Except as herein specified, nothing in these regulations shall be deemed to limit the power of the Board in this regard. If the owner or other person fails to adhere to such conditions, the Board may automatically cancel such permit or approvals. Without limiting the generality of this section, this section shall apply to: approval of variances, approval of control programs, granting of new or modified source permits and granting of open burning permits.

(b) An owner may consider any condition imposed by the Board as a denial of the requested approval or permit, which shall entitle the applicant to appeal the decision of the Board pursuant to Section 2.09.

2.12 PROCEDURAL INFORMATION AND GUIDANCE

(a) The Board may adopt detailed procedures which:

(1) Require data and information in addition to and in amplification of the provisions of these regulations;

(2) Are reasonably designed to determine compliance with applicable provisions of these regulations; and

(3) Set forth the format by which all data and information shall be submitted.

(b) In cases where these regulations specify that procedures or methods shall be approved by, acceptable to or determined by the Board or other similar phrasing, the owner may request information and guidance concerning the proper procedures and methods and the Board shall furnish in writing such information on a case-by-case basis.

2.13 - 2.29 RESERVED

2.30 AVAILABILITY OF INFORMATION

(a) Emission data provided to, or otherwise obtained by, the Board in accordance with the provisions of these regulations shall be available to the public.

(b) Except as provided in paragraph (a) of this section, any records, reports or information provided to, or otherwise obtained by, the Board in accordance with the provisions of these regulations shall be available to the public, except that:

(1) Upon a showing satisfactory to the Board by any owner that such records or information, or particular part thereof (other than emission data), if made public, would divulge methods or processes entitled to protection as trade secrets of such owner, the Board shall consider such records, reports or information, or particular part thereof, confidential in accordance with the purposes of Section 10.17-21 of the Virginia Air Pollution Control Law except that such records, reports or information, or particular part thereof, may be disclosed to other officers, employees or authorized representatives of the Commonwealth of Virginia and the Environmental Protection Agency concerned with carrying out the provisions of the Virginia Air Pollution Control Law and the Federal Clean Air Act; and

(2) Information received by the Board in accordance with Sections 2.31, 2.32, 2.33 and Part VII of these regulations shall not be disclosed if it is identified by the owner as being a trade secret or commercial or financial information which such owner considers confidential.

2.31 REGISTRATION

The owner of any stationary source to which permits are issued under Section 2.33 or for which emission standards are given in Parts IV, V and VI shall, upon request of the Board, register such source operations with the Board and update such registration information. The information required for registration shall be determined by the Board, and shall be provided in the manner specified by the Board.

2.32 CONTROL PROGRAMS

(a) As an alternative to immediate compliance with applicable emission standards, an owner of a stationary source may, at the discretion of the Board, submit to the Board in a form and manner satisfactory to the Board a control program showing how compliance shall be achieved as expeditiously as possible.

(b) The Board shall act as early as practicable, but within 90 days of an acceptable submission. The Board shall notify the owner in writing of its approval or denial of the control program and shall set forth its reasons therefor.

(c) When acting upon control programs, the Board shall be guided by the provisions of Sections 10-17.18(e) and (f) of the Virginia Air Pollution Control Law and the Federal Clean Air Act.

(d) The Board may require owners submitting a control program to submit periodic reports on progress in achieving compliance. Reports shall be submitted in the form and manner prescribed by the Board.

(e) If a control program is denied, the owner may appeal such denial pursuant to Section 2.09.

2.33 PERMITS - STATIONARY SOURCES AND INDIRECT SOURCES*

(a) General

(1) No owner or other person shall commence construction, reconstruction or modification of any of the following types of sources without first obtaining from the Board a permit to construct and operate or to modify and operate such source:

(i) Any stationary source not excepted by paragraph (g)(1) of this section.

(ii) Any indirect source not excepted by paragraph (g)(2) of this section. (Reconstruction of an indirect source is exempt from the requirements of this section.)

(iii) Any stationary source of hazardous air pollutants, to which an emission standard prescribed under Part VI became applicable prior to the commencement of construction, reconstruction or modification.

(2) No owner or other person shall operate a stationary source of hazardous air pollutants, to which an emission standard prescribed under Part VI became applicable prior to the initial startup after construction, reconstruction or modification, without first obtaining from the Board a permit to construct and operate or to modify and operate such source.

(3) No owner or other person shall relocate any stationary source subject to Section 2.31 without first obtaining a permit from the Board to relocate the source.

(4) No owner or other person shall reduce the outlet elevation of any stack or chimney which discharges any pollutant from an affected facility of a stationary source subject to Section 2.31 without first obtaining a permit from the Board.

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*Permit to Hampton Roads Energy Co. See Non-Regulatory Section for for 11/28/77 submitted.

(5) Prior to the decision of the Board, all permit reauests will be subject to a public comment period of at least 30 days. In addition, at the end of the public comment period, a public hearing will be held. The public comment period (including the public hearing) will not be required for the following:

(i) Fuel burning equipment using residual fuel oil with a maximum heat input of less than 2.5 million Btu per hour.

(ii) Fuel burning equipment using distillate fuel oil with a maximum heat input of less than 25 million Btu per hour.

(iii) Fuel burning equipment using gaseous fuel with a maximum heat input of less than 30 million Btu per hour.

(iv) Incinerators with a charging rate of less than 400 pounds per hour.

(b) Applications

(1) Application for a permit shall be made in the following manner. If the applicant is a partnership, a general partner shall sign the application. If the applicant is a corporation, association or cooperative, an officer shall sign the application. If the applicant is a sole proprietorship, the proprietor shall sign the application.

(2) A single application is required identifying each source subject to this section. The application shall be submitted according to procedures approved by the Board. However, where both stationary and indirect sources are included in one project, a single application covering all sources in the project may be submitted. A separate application is required for each location.

(3) For projects with phased development, a single application may be submitted covering the entire project.

(c) Information Required

(1) Each application for a permit shall include such information as may be required by the Board to determine the effect of the proposed source on the ambient air quality and to determine compliance with the emission standards which are applicable. The information required shall include, but is not limited to, the following:

(i) That specified on applicable permit forms furnished by the Board. Any calculations shall include sufficient detail to permit assessment of the validity of such calculations. Completion of these forms serves as initial registration of new and modified sources.

(ii) Any additional information or documentation that the Board deems necessary to review and analyze the air pollution aspects of the source, including the submission of measured air quality data at the proposed site prior to construction or modification. Such measurements shall be accomplished using procedures acceptable to the Board.

(2) For indirect sources that have prepared an Environmental Impact Statement pursuant to Section 102 of the National Environmental Policy Act, the air quality analysis part of the Environmental Impact Statement may be submitted in lieu of the information required in paragraph (c)(1)(i) of this section provided the air quality analysis is consistent with

the provisions of these regulations. This provision does not preclude the Board from requiring the information set forth in paragraph (c)(1) of this section.

(3) The above information and analysis shall be determined and presented according to procedures approved by the Board.

(d) Standards for Granting Permit

No permit will be granted unless it is shown to the satisfaction of the Board that:

(1) The source will be designed and will be constructed or modified to operate without causing a violation of the applicable provisions of these regulations.

(2) The source, if a stationary source (other than those specified in paragraph (d)(3) of this section), will be designed, built and equipped to comply with standards of performance set forth in Part V, or if none is established, the owner shall demonstrate to the satisfaction of the Board that the best available control technology will be applied.

(3) The source, if a stationary source of hazardous pollutants, will be designed, built and equipped to comply with emission standards set forth in Part VI.

(4) The source, if an indirect source, will be designed and will be constructed or modified to operate without causing a violation of Section 3.04.

(5) The proposed operation of the source will not prevent or interfere with the attainment or maintenance of any applicable ambient air quality standard. Methods used to determine air quality, to include equipment used and locations, shall be determined by the Board.

(e) Action on Permit Application

(1) Processing time for a permit is 90 days following receipt of a complete application. This 90 days includes a 30 day public comment period and public hearing. The Board shall notify the public, by advertisement in at least one major newspaper of general circulation in the Air Quality Control Region affected, of the opportunity for public comment and the public hearing on the information required by paragraph (c)(1) of this section (exclusive of confidential information under Section 2.30).

(i) Information on the permit request, as well as the tentative analysis of air quality impact and proposed decision of the Board, shall be available during the entire public comment period in at least one location in the Air Quality Control Region affected.

(ii) A copy of the notice required pursuant to this subparagraph shall be sent to all local air pollution control agencies having State Implementation Plan responsibilities in and all states sharing the Air Quality Control Region where the source will be located and to the Regional Administrator, Environmental Protection Agency.

(2) The Board normally will take final action on all applications within 30 days after expiration of the public comment period unless more information is required. The Board shall notify the applicant in writing of its approval or denial of the application, and shall set forth its reasons therefor. The Board shall notify the applicant as to emission standards acceptable to it during emissions testing in accordance with paragraph (f) of this section.

(3) If a permit is denied by the Board, an owner may appeal such denial pursuant to Section 2.09.

(f) Emission Testing for Stationary Sources

(1) Stationary sources other than those specified in paragraph (f)(2) of this section shall be tested in accordance with the provisions of Section 5.03.

(2) Stationary sources of hazardous pollutants shall be tested in accordance with the provisions of Section 6.03.

(3) Upon request of the applicant, the Board may grant waivers on a case-by-case basis from the requirements of this paragraph.

(g) Exceptions

(1) Stationary Sources (which do not emit Hazardous Pollutants)

A permit will not be required for:

(i) The installation or alteration of air pollutant detectors, air pollutant recorders, combustion controllers or combustion shutoff controls.

(ii) The installation and operation of air conditioning or ventilating systems not designed to remove air pollutants generated by or released from an affected facility.

(iii) The installation and operation of low capacity fuel burning equipment, such as: process smoke house generators; devices that use gas as a fuel for air conditioning or heating water; fuel burning equipment using solid fuel with a maximum heat input of less than 350,000 Btu per hour; or fuel burning equipment using gaseous and/or liquid fuel with a maximum heat input of less than 1,000,000 Btu per hour.

(iv) The installation and operation of internal combustion engines aggregating under 3000 hp at a single location.

(v) The installation and operation of laboratory equipment used exclusively for chemical or physical analysis.

(vi) The installation and operation of sources of minor significance.

(vii) Open burning - open burning permits are obtained under Section 4.11(h).

(2) Indirect Sources

A permit will not be required for the following:

(i) Any airport, the construction or modification of which is expected to result in the following activity within 10 years of construction or modification:

a. New airport: less than 50,000 aircraft operations per year by regularly scheduled air carriers, or use by less than 1,600,000 passengers per year.

b. Modified airport: Increase of less than 50,000 aircraft operations per year by regularly scheduled air carriers over the existing volume of aircraft operations, or increase of less than 1,600,000 passengers per year.

(ii) Any airport, the construction or modification of which is not designed or planned to be utilized by regularly scheduled air carriers.

(iii) Single-family residential developments.

(iv) In an SMSA

a. Indirect Sources, other than highway projects and airports, the operation of which when completed or modified will attract fewer than 700 additional vehicles to the roadways and parking facilities serving the indirect source over the 1-hour period during which the maximum number of vehicles is anticipated and fewer than 1750 additional vehicles to the roadways and parking facilities serving the indirect source during the continuous 8-hour period during which the maximum number of vehicles is expected.

b. Any new or modified highway project with less than the following maximum expected average annual daily traffic volume within 10 years of construction or modification:

1. New highway project: 20,000 vehicles per day

2. Modified highway project: 10,000 vehicles per day increase over existing traffic volume on such highway project.

(v) Outside an SMSA

a. Indirect sources, other than highway projects and airports, the operation of which when completed or modified will attract fewer than 1400 additional vehicles to roadways and parking facilities serving the indirect source over the 1-hour period during which the maximum number of vehicles is anticipated and fewer than 3500 additional vehicles to roadways and parking facilities serving the indirect source during the continuous 8-hour period during which the maximum number of vehicles is expected.

b. Any new or modified highway project.

(3) Where an indirect source is constructed or modified in increments which individually are not subject to approval under this section, and which are not part of a program of construction or modification in planned incremental phases approved by the Board, all such increments shall be added together for determining the applicability of this paragraph.

(h) Revocation of Permit

A permit granted pursuant to this section shall be revoked if a program of continuous construction is not begun within 24 months from the date the permit is granted.

(i) Existence of Permit No Defense

The existence of a permit under this section shall not constitute a defense to a violation of the Virginia Air Pollution Control Law or these regulations and shall not relieve any owner of the responsibility to comply with any applicable regulations, laws, ordinances and orders of the governmental entities having jurisdiction.

(k) Application Review and Analysis

No permit shall be granted pursuant to this section unless a review and analysis of the application is performed on a source-by-source basis as specified below:

(1) Stationary Sources

Applications for stationary sources shall be subject to a control technology review to determine if such source will be designed, built and equipped to comply with all applicable standards of performance prescribed under Part V, or if none is established to use best available control technology.

(2) Stationary Sources of Hazardous Air Pollutants

Applications for stationary sources of hazardous air pollutants shall be subject to a control technology review to determine if such source will be designed, built and equipped to comply with all applicable emission standards prescribed under Part VI.

(3) Major Stationary Sources

Applications for major stationary sources shall be subject to a control technology review as specified in paragraphs (k)(1) and (2) of this section and shall be subject to an air quality analysis (which shall be provided by the applicant) to determine the impact of qualifying pollutant emissions.

(4) Indirect Sources

Applications for indirect sources shall be subject to an air quality analysis to determine the impact of indirect carbon monoxide emissions.

(5) Stack Elevation Reductions under Section 2.33(a)(4)

Applications under Section 2.33(a)(4) shall be subject to an air quality analysis to determine the impact of applicable criteria pollutant emissions.

(l) Notwithstanding the exemptions, no owner or other person shall circumvent the requirements of this section by causing or allowing a pattern of ownership or development over a geographic area of an indirect source, which, except for the pattern of ownership or development, would otherwise require an indirect source permit.

2.34 FACILITY AND CONTROL EQUIPMENT MAINTENANCE OR MALFUNCTION

(a) At all times, including periods of startup, shutdown and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice of minimizing emissions.

(b) In case of shutdown and/or bypassing of air pollution control equipment for necessary scheduled maintenance which results in an increase of emissions of air pollutants in violation of applicable provisions of these regulations for more than 1 hour, the intent to shut down such equipment shall be reported to the Board and local air pollution control agency, if any, at least 24 hours prior to the planned shutdown. Such prior notice shall include, but is not limited to, the following:

(1) Identification of the specific facility to be taken out of service as well as its location and permit and/or registration number.

(2) The expected length of time that the air pollution control equipment will be out of service.

(3) The nature and quantity of emissions of air pollutants likely to occur during the shutdown period.

(4) Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage of the air pollution control equipment.

(c) In the event that any air pollution control equipment of any source or related facility, malfunctions in such a manner that may cause an increase in the emission of air pollutants in violation of applicable provisions of these regulations for more than 1 hour, the owner shall, as soon as practicable but no later than 4 daytime business hours, notify the Board by telephone or telegraph of such failure or malfunction and shall then provide a written statement giving all pertinent facts, including the estimated duration o- the breakdown. When the condition causing the malfunction has been corrected and the equipment is again in operation, the owner shall notify the Board.

(d) In the event that the breakdown period cited in paragraph (c) of this section, exists for 30 or more days, the owner shall, within 30 days of the malfunction and semi-monthly thereafter until the malfunction is corrected, submit to the Board a written report containing the following:

(1) Identification of the specific facility that is affected as well as its location and permit and/or registration number.

(2) The expected length of time that the air pollution control equipment will be out of service.

(3) The nature and quantity of emissions of air pollutants likely to occur during the breakdown period.

(4) Measures to be taken to reduce emissions to the lowest amount practicable during the breakdown period.

(5) A statement as to why the owner was unable to obtain said repair parts or perform said repairs which would allow compliance with the provisions of these regulations within 30 days of the malfunction.

(6) An estimate, with reasons therefor, of the duration of the shortage of repair or repair parts which would allow compliance with the provisions of these regulations.

(7) Any other pertinent information as may be requested by the Board.

(e) The procedural requirements of paragraph (d) of this section shall not be applicable 6 months after the date of the malfunction. Should the breakdown period exist beyond the 6-month period, the owner may apply for a variance in accordance with Section 2.05(a).

(f) The Board recognizes that malfunctions may occur for many and varied reasons. Curtailment of operations shall be required, except as covered in paragraph (g) of this section, if the source is not in compliance at least 90 percent of the operating time over the most recent 12-month period.

(g) No violation of applicable emission standards shall be deemed to have taken place if such emissions are due to a malfunction provided that:

(1) The procedural requirements of this section are met,

(2) The owner has taken expedient and reasonable measures to minimize emissions during the breakdown period, and

(3) The owner has taken expedient and reasonable measures to correct the malfunction and return the source to a normal operation.

(h) Nothing in this section shall be construed as giving an owner the right to increase temporarily the emission of pollutants or to circumvent the emission standards otherwise provided in these regulations.

PART III

AMBIENT AIR QUALITY STANDARDS

3.01 GENERAL

(a) The provisions of this part, unless specified otherwise, shall be applicable throughout the Commonwealth of Virginia.

(b) Ambient air quality standards are required to assure that ambient concentrations of air pollutants are consistent with established criteria and such standards shall serve as the basis for effective and reasonable management of the air resources of the Commonwealth of Virginia.

(c) Primary ambient air quality standards define levels of air quality which, allowing an adequate margin of safety, are necessary to protect the public health. Secondary ambient air quality standards define more stringent levels of air quality which are necessary to protect the public welfare from any known or anticipated adverse effects associated with the presence of air pollutants in the ambient air. At such time as additional pertinent information becomes available with respect to applicable air quality criteria, such information will be considered and the ambient air quality standards will be revised accordingly.

(d) The absence of a specific ambient air quality standard shall not preclude action by the Board to control pollutants to assure protection, safety, welfare and comfort of the people of the Commonwealth of Virginia.

(e) Where applicable, all measurements of air quality shall be corrected to a reference temperature of 77°F and to a reference pressure of 14.7 pounds per square inch absolute.

3.02 PARTICULATE MATTER

(a) Primary ambient air quality standards are:

(1) 75 micrograms per cubic meter - annual geometric mean.

(2) 260 micrograms per cubic meter - maximum 24-hour concentration not to be exceeded more than once per year.

(b) Secondary ambient air quality standards are:

(1) 60 micrograms per cubic meter - annual geometric mean, as a guide to be used in assessing achievement of the 24-hour standard in paragraph (b)(2) of this section.

(2) 150 micrograms per cubic meter - maximum 24-hour concentration not to be exceeded more than once per year.

(c) Particulate matter shall be measured by the reference method described in 40 CFR Part 50, Appendix B, or other method designated as such, or by an equivalent method.

3.03 SULFUR OXIDES (SULFUR DIOXIDE)

(a) Primary ambient air quality standards are

(1) 80 micrograms per cubic meter (0.03 ppm) - annual arithmetic mean.

(2) 365 micrograms per cubic meter (0.14 ppm) - maximum 24-hour concentration not to be exceeded more than once per year.

(b) Secondary ambient air quality standard is 1,300 micrograms per cubic meter (0.50 ppm) - maximum 3-hour concentration not to be exceeded more than once per year.

(c) Sulfur dioxide shall be measured by the pararosaniline method as described in 40 CFR Part 50, Appendix A, or by an equivalent method.

3.04 CARBON MONOXIDE

(a) Primary and secondary ambient air quality standards are

(1) 10 milligrams per cubic meter (9 ppm) - maximum 8-hour concentration not to be exceeded more than once per year.

(2) 40 milligrams per cubic meter (35 ppm) - maximum 1-hour concentration not to be exceeded more than once per year.

(b) Carbon monoxide shall be measured by the nondispersive infrared spectrometry method, as described in 40 CFR Part 50, Appendix C, or by an equivalent method.

3.05 PHOTOCHEMICAL OXIDANTS

(a) Primary and secondary ambient air quality standard is 160 micrograms per cubic meter (0.08 ppm) - maximum 1-hour concentration not to be exceeded more than once per year.

(b) Photochemical oxidants shall be measured and corrected for interferences due to nitrogen oxides and sulfur dioxide by the method described in 40 CFR Part 50, Appendix D, or by an equivalent method.

3.06 HYDROCARBONS

(a) Primary and secondary ambient air quality standard for hydrocarbons is 160 micrograms per cubic meter (0.24 ppm) - maximum 3-hour concentration (6-9 a.m.) not to be exceeded more than once per year.

(b) Hydrocarbons shall be measured and corrected for methane by the method described in 40 CFR Part 50, Appendix E, or by an equivalent method.

(c) The hydrocarbon ambient air quality standard is for use as a guide in determining hydrocarbon emission control required to achieve the photochemical oxidant standard.

3.07 NITROGEN DIOXIDE

(a) Primary and secondary ambient air quality standard is 100 micrograms per cubic meter (0.05 ppm) - annual arithmetic mean.

(b) Nitrogen dioxide shall be measured by the method described in 40 CFR Part 50, Appendix F, or by an equivalent method.

PART IV

SPECIAL PROVISIONS

4.01 APPLICABILITY

The provisions of this part unless specified otherwise shall be applicable only to existing sources for which emission standards are set forth in this part, mobile sources and open burning.

4.02 COMPLIANCE

(a) 90 days after the effective date of any emission standard prescribed under this part no owner or other person shall operate any existing source in violation of such standard.

(1) Compliance with standards in this part, other than opacity standards, shall be determined by emission tests established by Section 4.03.

(2) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Reference Method 9. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative, but not conclusive evidence of the actual opacity of an emission, provided that the owner meets the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 of Appendix 8 of 40 CFR Part 60, has been properly maintained and (at the time of the alleged violation) calibrated, and that the resulting data have not been tampered with in any way.

(b) No owner of an existing source subject to the provisions of this part shall fail to conduct emission tests as required under this part.

(c) No owner of an existing source subject to the provisions of this part shall fail to install, calibrate, maintain and operate equipment for continuously monitoring and recording emissions and/or process parameters as required in this part.

(d) No owner of an existing source subject to the provisions of this part shall fail to provide notifications and reports, revise reports, maintain records or report emission test or monitoring results as required under this part.

(f) New or More Stringent Emission Standards

(1) In the case of any emission standard adopted by the Board which is more stringent than the emission standard for the source in effect prior to such adoption, if any, or where there was no emission standard, the source shall not be considered in violation of the newly adopted emission standard provided that the owner:

(i) Submits to the Board, in a form and manner satisfactory to the Board, a control program showing how compliance shall be achieved within the time frame in the applicable compliance schedule prescribed under Appendix N or, where no applicable compliance schedule is prescribed under Appendix N, as expeditiously as possible, but in no case later than three years after the effective date of such emission standard;

(ii) Receives approval of the Board of such control program within one year after the effective date of such emission standard; and

(iii) Complies with all provisions, terms and conditions of the control program including the increments of progress.

(2) The reprieve provided by paragraph (f)(1) of this section shall only apply in cases where it is necessary for the owner to:

(i) Install emission control equipment or other equipment that alters the facility in order to comply with the emission standard; and/or

(ii) Switch fuel and/or raw materials in order to comply with the emission standard.

(3) Owners of sources not in compliance with the newly adopted emission standard, but who are in compliance with the provisions of paragraph (f)(1) of this section shall not be subject to any penalties required by the Virginia Air Pollution Control Law.

(4) Any reprieve from the sanctions of any provisions of the Virginia Air Pollution Control Law pursuant to paragraph (f)(1) of this section shall not extend beyond the date, specified in the approved control program, by which compliance is to be achieved.

(5) Control programs submitted under the provisions of paragraph (f)(1) of this section shall be processed in accordance with the provisions of Section 2.32, except that if the control program contains a compliance schedule to achieve compliance within the timeframe in the applicable compliance schedule prescribed in Appendix N, the public hearing provision of Section 2.32 shall not apply.

4.03 EMISSION TESTING

(a) Emission tests for existing sources shall be conducted and reported and data reduced as set forth in this part and the appropriate reference methods; if not appropriate, then equivalent or alternative methods shall be used.

(b) Emission testing for existing sources shall be subject to testing guidelines as approved by the Board. Procedures may be adjusted or changed by the Board to suit specific sampling conditions or needs based upon good practice, judgement and experience. When such tests are adjusted, consideration shall be given to the effect of such change on established emission standards. Tests shall be performed under the direction of persons whose qualifications are acceptable to the Board.

(c) Emission tests for existing sources shall be conducted under such conditions as the Board shall specify to the owner based on representative performance of the source. The owner shall make available to the Board such records as may be necessary to determine the conditions of the emission tests. Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions of emmision tests unless otherwise specified in the applicable standard.

(d) An owner may request the Board to determine the opacity of emissions from an existing source during the emission tests required by this section.

(e) Each emission test for an existing source shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions acceptable to the Board. For the purpose of determining compliance with an applicable standard the arithmetic means of results of the three runs shall apply. In the event that a sample is acidentally lost or conditions occur in which one of the three runs must be dicontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions or other circumstances beyond the owner's control, compliance may, upon the approval of the Board, be determined using the arithmetic means of the results of the two other runs.

(f) The Board may test emissions of air pollutants from any existing source. Upon request of the Board the owner shall provide, or cause to be provided, emission testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(g) Upon request of the Board the owner of any existing source subject to the provisions of this part shall conduct emission tests in accordance with procedures approved by the Board.

4.04 MONITORING, RECORDS AND REPORTING

(a) The Board may direct an owner to: install, use and maintain monitoring equipment and sample the emissions in accordance with methods acceptable to the Board; and to maintain records and make periodic emission reports as required in paragraph (b) of this section.

(b) Records and reports, as the Board shall direct, pertaining to air pollutants or fuel, shall be recorded, compiled and submitted in a format acceptable to the Board.

PART IV

EMISSION STANDARDS FOR
OPEN BURNING
(RULE EX-1)

4.10 GENERAL

(a) No owner or other person shall cause, suffer, allow or permit open burning of refuse except as provided in Section 4.11 or 4.12.

(b) Rubber tires, asphaltic materials, crankcase oil, impregnated wood and similar materials shall not be burned except at training schools having permanent facilities for fire fighting instruction.

(c) No salvage operation shall be conducted by open burning.

(d) Open burning under the provisions of this rule does not exempt or excuse any owner from the consequences, damages or injuries which may result from such conduct, nor does it excuse or exempt any owner from complying with applicable laws, ordinances, regulations and orders of the governmental entities having jurisdiction, even though the open burning is conducted in compliance with this rule.

(e) No open burning shall be conducted and any being conducted shall be immediately terminated in the designated Air Quality Control Region upon declaration of an Alert, Warning or Emergency Stage of an Air Pollution Episode as described in Part VII or when deemed advisable by the Board to prevent a hazard to, or an unreasonable burden upon, public health or welfare.

(f) No open burning shall be conducted so as to produce such quantities of air pollutants, uncombined water or other materials as may cause a traffic hazard.

4.11 EXCEPTIONS (AQCR 1 thru 6)

(a) Upon the request of an owner or a responsible public official, civil or military, the Board may approve open burning under controlled conditions, for the elimination of a hazard which constitutes a threat to the public health, safety or welfare and which cannot be remedied by other means consonant with the circumstances presented by the hazard.

(b) Open burning is permitted for training and instruction of government and public fire fighters under the supervision of the designated official and industrial in-house fire fighting personnel with clearance from the local fire fighting authority. The responsible official in charge of the training shall notify and obtain the approval of the Regional Director prior to conducting the training exercise. Training schools where permanent facilities are installed for fire fighting instruction are exempt from this notification.

(c) Open burning is permitted for camp fires or other fires that are used solely for recreational purposes, for ceremonial occasions, for outdoor noncommercial preparation of food, and for warming of outdoor workers using Salamanders or other devices providing good combustion, provided the materials specified in Section 4.10(b) are not burned.

(d) In those areas where no collection service for leaves is available at the adjacent street or public road, the open burning of leaves is permitted between sunrise and 4:00 p.m. provided that:

  (1) No nuisance or traffic hazard from smoke is created.

  (2) The location of the burning is not less than 300 feet from any occupied building unless the occupant(s) has given prior written permission.

(e) For the disposal of ordinary household refuse by homeowners or tenants in localities or portions of localities where no collection service is available on the adjacent street or public road on a schedule of at least once per week or collection boxes are not provided by the locality, the open burning of ordinary household refuse is permitted provided that:

  (1) No nuisance or traffic hazard from smoke is created.

  (2) Animal carcasses are not burned.

  (3) The location of the burning is not less than 300 feet from any occupied building unless the occupant(s) has given prior written permission.

(f) Open burning is permitted for the destruction of any combustible liquid or gaseous material by burning in a flare or flare stack.

(g) For disposal of land clearing debris on the site of the clearing operation resulting from the development or modification of roads and highways, parking areas, railroad tracks, pipelines, power and communication lines, buildings or building areas, sanitary landfills, and including forest management and agriculture practices approved by the Board (see Appendix D), open burning is permitted provided the following conditions are met:

  (1) The person performing the burning shall inform the Regional office of the Board prior to the burning.

  (2) The burning shall be at least 1,000 feet from any occupied building or buildings unless the occupant(s) has given prior written permission.

(3) The burning shall not be unattended.

(h) When the burning contemplated by paragraph (g) of this section is to occur within independent cities, towns or Air Quality Maintenance Areas, those responsible for the burning shall, prior thereto, obtain a permit from the Board. Such permits will be issued only after a public hearing with 15 days prior notice in the affected locality and if the following criteria are met:

(1) The emission proposed to occur does not cause an apparent health hazard.

(2) The emission proposed to occur does not promote a significant long term effect on ambient air quality.

(3) Disposal by other means would produce serious hardship without equal or greater benefits to the public.

4.12 EXCEPTIONS (AQCR 7)

(a) Open fires may be set in performance of an official duty of any public health or safety officer, after notification of State and local air pollution control agencies, if the fire is necessary for one or more of the following reasons or purposes:

(1) For the prevention of a fire hazard which cannot be abated by other means;

(2) For the instruction of public fire fighters under the supervision of a designated Fire Marshal;

(3) For the protection of public health.

(b) Fires may be used for cooking of food, provided no smoke violation or other nuisance is created.

(c) Open fires may be set for recreational purposes, such as camp fires, provided no smoke violation or nuisance is created.

(d) Salamanders or other devices may be used for heating by construction or other workers, provided no smoke violation or other nuisance is created.

(e) In those areas where provision for public or private collection of leaves is not made, the open burning of leaves is permitted.

(f) In those areas where regular refuse collection is not available, open burning of ordinary household trash by householder is permitted, provided that:

(1) Garbage, dead animals and animal waste are not burned;

(2) Materials are not burned which create dense smoke (emissions of an opacity greater than 20 percent) or objectionable odors or any other emissions which may be injurious or noxious to people or property;

(3) No nuisance is created.

(g) Open fires may be set for operation of craft exhibits, pageants of historical significance and for ceremonial occasions.

(h) Fires may be set in the course of forest management and agricultural operations in growing crops or raising fowl or animals provided no nuisance is created.

4.13 EXCLUSION

This rule does not apply to open burning using devices or methods specifically designed to provide good combustion performance under the following conditions:

(a) Visible emissions shall comply with Rule EX-2.

(b) All devices or methods proposed under this section shall be approved by the Board or local air pollution control agency, if any, prior to installation.

PART IV

EMISSION STANDARDS FOR VISIBLE EMISSIONS & FUGITIVE DUST

(RULE EX-2)

4.20 APPLICABILITY AND DESIGNATION OF AFFECTED FACILITY

The provisions of this rule are applicable to the following:

(a) Affected facilities in stationary sources: facilities that emit or cause visible emissions;

(b) Any source of fugitive dust; and

(c) Any source of visible emissions that may cause a traffic hazard.

4.21 RESERVED

4.22 STANDARD FOR VISIBLE EMISSIONS*

Unless specified otherwise in this part, no owner or other person shall cause to be discharged into the atmosphere from any affected facility any emissions which exhibit greater than 20 percent opacity, except for two six-minute periods in any one hour. Failure to meet the requirements of this section solely because of the presence of uncombined water shall not be a violation of this section.

4.23 FUGITIVE DUST

No owner or other person shall cause, suffer, allow or permit any materials to be handled, transported or stored; or a building, its appurtenances or a road to be used, constructed, altered, repaired or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to the following:

(a) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structires, construction operations, the grading of roads or the clearing of land;

(b) Applications of asphalt, oil, water or suitable chemicals on dirt roads, materials stockpiles and other surfaces which can create airborne dusts;

(c) Installation and use of hoods, fans and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations;

*Order granting a variance to Westvaco Corp. See non regulatory Federal Register Publication 3/14/80.

(d) Open equipment for conveying or transporting materials likely to become airborne which would create objectionable air pollution shall be covered, or treated in an equally effective manner at all times when in motion;

(e) The paving of roadways and their maintenance in a clean condition;

(f) The prompt removal of dirt or other material from paved streets over which such material has been transported by trucking or earth moving equipment or erosion by water.

4.25 TEST METHODS AND PROCEDURES

Reference Method 9 or any alternative method shall be used to determine compliance with the standard prescribed in Section 4.22.

4.26 WAIVERS

(a) A waver from the opacity emission limitation in Section 4.22 may be granted by the Executive Director, provided a technical decisions is reached that the plume opacity observations made in accordance with Section 4.02(a)(2) and 4.25 are not representative of the pollutant loading of the plume.

(b) Upon granting the above waiver, the Executive Director shall require one or more alternate source surveillance methods. Such alternate source surveillance methods may include, but not be limited to, the following:

(1) Requiring the owner to install, calibrate maintain and operate systems for continuously monitoring and recording emissions of specified pollutants in accordance with Sections 4.04 and 4.24.

(2) Requiring the owner to conduct, at specified intervals, emission tests for measuring emissions of specified pollutants in accordance with Sections 4.03.

(3) Establishing an opacity emission limitation for the facility based on a correlation between emission tests of visible emissions and emissions of other specified pollutants.

(c) The waiver may be granted for an indefinite period of time; however, approval may be withdrawn by the Executive Director:

(1) For failure to adhere to any terms or conditions of the waiver;

(2) If the affected facility is found to be in violation of any applicable emission standard; or

(3) For failure to conduct or adhere to any alternative source surveillance method required for waiver approval.

4.27 TRAFFIC HAZARD

No owner or other person shall discharge from any source whatsoever such quantities of air pollutants, uncombined water or other materials as may cause a traffic hazard.

PART IV

EMISSION STANDARDS FOR PARTICULATE EMISSIONS FROM FUEL BURNING EQUIPMENT

(RULE EX-3)

4.30 APPLICABILITY AND DESIGNATION OF AFFECTED FACILITY

The provisions of this rule are applicable to all fuel-burning equipment units at a plant or on a premise, which are the affected facility.

4.31 STANDARD FOR PARTICULATE MATTER

(a) No owner or other person shall cause or allow to be emitted into the atmosphere from an affected facility any gaseous products of combustion containing particulate matter in excess of the following standard:

↳ gaseous products of combustion containing

(1) In AQCR 1 thru 6

(i) For affected facilities with total capacity less than 10 million (10×10^6) Btu per hour, the maximum allowable emission ratio shall be 0.6 pounds of particulate per million Btu impact.

(ii) For affected facilities with total capacity between 10 million (10×10^6) and 10 billion ($10{,}000 \times 10^6$) Btu per hour, the maximum allowable emission ratio, E, in pounds of particulate per million Btu input, shall be determined by the following equation: $E = 1.0906H^{-0.2594}$, where H is the total capacity in millions of Btu per hour.

(iii) For affected facilities with total capacity in excess of 10 billion ($10{,}000 \times 10^6$) Btu per hour, the maximum allowable emission ratio shall be 0.1 pounds of particulate per million Btu input.

(iv) Figure 4.30A illustrates the above emission standard.

(2) In AQCR 7

(i) For affected facilities with total capacity less than 100 million (100×10^6) Btu per hour, the maximum allowable emission ratio shall be 0.3 pounds of particulate per million Btu input.

(ii) For affected facilities with total capacity between 100 million (100×10^6) and 10 billion ($10{,}000 \times 10^6$) Btu per hour, the maximum allowable emission ratio, E, in pounds of particulate per million Btu input, shall be determined by the following equation: $E = 0.9000H^{-0.2386}$, where H is the total capacity in millions of Btu per hour.

(iii) For affected facilities with total capacity in excess of 10 billion (10,000 x 10^6) Btu per hour, the maximum allowable emission ratio shall be 0.1 pounds of particulate per million Btu input.

(iv) Figure 4.30B illustrates the above emission standard.

(b) The maximum allowable particulate emissions for an affected facility shall be the product of the total capacity and the emission ratio.

(c) The allowable particulate emissions for an affected facility when operating at less than total capacity, using varying capacity type combustion equipment (not on-off operation) with either single or multiple units, shall be the product of the percent load, emission contribution allocation and efficiency factors for the collection equipment. The percent load shall be the quotient of the actual load and the rated capacity. The efficiency factor for the collection equipment of each unit shall be determined using procedures set forth in paragraph (d) of this section. The emission contribution allocation shall be determined using procedures set forth in paragraph (e) of this section.

(INSERT)

(d) This section not approved by EPA.

{INSERT clipped}

(e) The emission contribution allocation for each of the fuel burning equipment units of the affected facility shall be its designated portion of the maximum allowable particulate emissions from the affected facility when operating at total capacity. The portions shall be designated using the following procedures:

(1) The Board shall notify the owner of the total capacity for his affected facility and shall recommend an acceptable emission contribution for each unit. Within 2 months after the date of the notification by the Board, the owner shall notify the Board that he accepts the recommended emission contribution allocations or requests that other allocations be used. Anytime thereafter, the owner may request a change and submit revised allocations. Unless the Board notifies the owner within 2 months of its objections to any allocations requested or submitted by the owner, the owner's allocations shall be the emission contribution.

(2) For facilities in operation on the effective date of this section, the Board shall dispatch the first notification in paragraph (e)(1) of this section within 6 months of the effective date of this section. For owners of facilities which submit changes to pertinent information after the effective date of this section, the Board shall dispatch the first notification in paragraph (e)(1) of this section within 2 months of the permit date or receipt of the information changes.

4.32 EXEMPTIONS

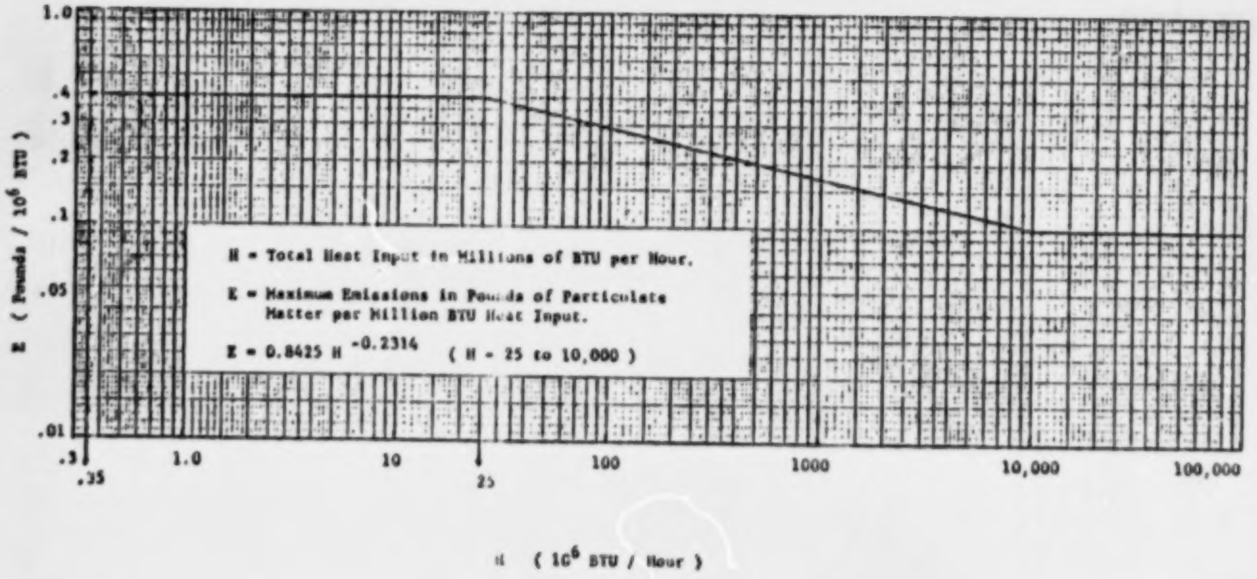
(a) All fuel burning equipment units using solid fuel with a maximum heat input of less than 350,000 Btu per hour shall be exempt from this rule.

(b) All fuel burning equipment units using gas or oil with a maximum heat input of less than 1,000,000 Btu per hour shall be exempt from this rule.

(c) All fuel burning equipment units with intermittently operated gas, oil or coal firing equipment shall be exempt from Section 4.31(c).

FIGURE 4.30A

ALLOWABLE PARTICULATE EMISSIONS FROM FUEL BURNING EQUIPMENT



PART IV

EMISSION STANDARDS FOR PARTICULATE EMISSIONS FROM MANUFACTURING OPERATIONS AND FUGITIVE DUST
(RULE EX-4)

4.40 MANUFACTURING OPERATIONS

(a) General

(1) Unless covered by a specific standard for a particular process in paragraph (b) of this section no owner or other person shall cause, suffer, allow or permit the emission of particulate matter from any process unit in excess of the amount shown in paragraphs (a)(1)(i) and (ii) of this section for the process weight rate allocated to such process unit.

(i) AQCR 1 thru 6 - Table 4.40A

TABLE 4.40A

Process Weight Rate		Maximum Allowable Emission Rate
Lb/Hr	Tons/Hr	Lb/Hr
100	0.05	0.551
200	0.10	0.877
400	0.20	1.40
600	0.30	1.83
800	0.40	2.22
1000	0.50	2.58
1500	0.75	3.38
2000	1.00	4.10
2500	1.25	4.76
3000	1.50	5.38
3500	1.75	5.96
4000	2.00	6.52
5000	2.50	7.58
6000	3.00	8.56
7000	3.50	9.49
8000	4.00	10.4
9000	4.50	11.2
10000	5.00	12.0
12000	6.00	13.6
16000	8.00	16.5
18000	9.00	17.9
20000	10.00	19.2
30000	15.00	25.2
40000	20.00	30.5
50000	25.00	35.4
60000	30.00	40.0
70000	35.00	41.3
80000	40.00	42.5

Process Weight Rate		Maximum Allowable Emission Rate
Lb/Hr	Tons/Hr	Lb/Hr
90000	45.00	43.6
100000	50.00	44.6
120000	60.00	46.3
140000	70.00	47.8
160000	80.00	49.1
200000	100.00	51.3
1000000	500.00	69.0
2000000	1000.00	77.6
6000000	3000.00	92.7

Interpolation of the data in Table 4.40A for process weight rates up to 60,000 lb/hr shall be accomplished by use of the equation $E = 4.10 P^{0.67}$, and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lb/hr shall be accomplished by use of the equation $E = 55.0 P^{0.11} - 40$, where E = emission rate in lb/hr and P = process weight rate in tons/hr.

(ii) AQCR 7 - Table 4.40B

TABLE 4.40B

Process Weight Rate		Maximum Allowable Emission Rate
Lb/Hr	Tons/Hr	Lb/Hr
50	0.025	0.24
100	0.050	0.46
150	0.075	0.66
200	0.100	0.85
250	0.125	1.03
300	0.150	1.20
350	0.175	1.35
400	0.200	1.50
450	0.225	1.63
500	0.250	1.77
550	0.275	1.85
600	0.300	2.01
650	0.325	2.12
700	0.350	2.24
750	0.375	2.34
800	0.400	2.43
850	0.425	2.53
900	0.450	2.62
950	0.475	2.72
1000	0.500	2.80
1100	0.55	2.97
1200	0.60	3.12
1300	0.65	3.26
1400	0.70	3.40
1500	0.75	3.54
1600	0.80	3.66

TABLE 4.40B (Continued)

Process Weight Rate		Maximum Allowable Emission Rate
Lb/Hr	Tons/Hr	Lb/Hr
1700	0.85	3.79
1800	0.90	3.91
1900	0.95	4.03
2000	1.00	4.14
2100	1.05	4.24
2200	1.10	4.34
2300	1.15	4.44
2400	1.20	4.55
2500	1.25	4.64
2600	1.30	4.74
2700	1.35	4.84
2800	1.40	4.92
2900	1.45	5.02
3000	1.50	5.10
3100	1.55	5.13
3200	1.60	5.27
3300	1.65	5.36
3400	1.70	5.44
3500	1.75	5.52
3600	1.80	5.61
3700	1.85	5.69
3800	1.90	5.77
3900	1.95	5.85
4000	2.00	5.93
4100	2.05	6.01
4200	2.10	6.08
4300	2.15	6.15
4400	2.20	6.22
4500	2.25	6.30
4600	2.30	6.37
4700	2.35	6.45
4800	2.40	6.52
4900	2.45	6.60
5000	2.50	6.67
5500	2.75	7.03
6000	3.00	7.37
6500	3.25	7.71
7000	3.50	8.05
7500	3.75	8.39
8000	4.00	8.71
8500	4.25	9.03
9000	4.50	9.36
9500	4.75	9.67
10000	5.00	10.00
11000	5.50	10.63
12000	6.00	11.28
13000	6.50	11.89
14000	7.00	12.50

TABLE 4.40B (continued)

Process Weight Rate Lb/Hr	Process Weight Rate Tons/Hr	Maximum Allowable Emission Rate Lb/Hr
15000	7.50	13.13
16000	8.00	13.74
17000	8.50	14.36
18000	9.00	14.97
19000	9.50	15.58
20000	10.00	16.19
30000	15.00	22.22
40000	20.00	23.30
50000	25.00	34.30
60000 or more	30.00 or more	40.00

Where the process weight rate falls between two values in Table 4.40B the maximum allowable emission rate shall be determined by linear interpolation.

(2) Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this rule, the interpretation that results in the minimum value for allowable emission shall apply.

(3) For purposes of this rule, the total process weight rate for each individual process unit at a plant or premises shall be used for determining the maximum allowable emission rate of particulate matter that passes through a stack or stacks.

(4) This rule does not apply to fuel burning equipment and incinerators.

(b) Specific Industries (AQCR 1 thru 6)

(1) Petroleum Refining Catalytic Cracking Units - No owner or other person shall cause, suffer, allow or permit particulate emissions from existing petroleum catalytic cracking units in excess of 0.05 percent of the rate of catalyst recirculation within the unit.

(2) Hot Mix Asphalt Plants - No owner or other person shall cause, suffer, allow or permit particulate matter resulting from the operation of a hot mix asphalt plant to be discharged into the atmosphere in excess of the rates set forth in Table 4.40C.

TABLE 4.40C

Process Weight Rate Tons/Hr	Maximum Allowable Emission Rate Lb/Hr
5	10
10	16
15	22
20	28
25	31
50	33
100	37
150	40
200	43
250	47
300 or more	50

Linear interpolation shall be used for rates between any two consecutive rates stated in Table 4.40C. All such airborne particulate matter emanating from the yards, sidings or roads of such operations shall be controlled as stipulated in Section 4.41. Relocated hot mix asphalt plants shall continue to meet the standards set forth in this paragraph provided no modification takes place. Should the plant be modified it shall be subject to the new and modified source standards of performance set forth in 40 CFR Part 60, Subpart I.

(3) Chemical Fertilizer Manufacturing Plants - No owner or other person shall cause, suffer, allow or permit particulate matter caused by chemical fertilizer manufacturing operations, which utilize recycle and physically connected dissimilar processes as a part of the manufacturing operation, to be discharged from any stack or outlet into the atmosphere in excess of the rates shown in Table 4.40D.

TABLE 4.40D

Process Weight Rate Tons/Hr	Emission Rate Lb/Hr
15	19.2
30	30.5
60	42.5
90	46.3
120	49.0
150	51.2
180	53.1

The process weight rate entry to be used in Table 4.40D for chemical fertilizer manufacturing processes shall be considered as the production rate, or for chemical fertilizer operations involving physically connected dissimilar processes shall be the sum of the process weight rates of each of the dissimilar processes. The materials handling and screening equipment shall not be considered processes for the determination of process weight rate. For a process weight rate between any two consecutive rates stated in Table 4.40D, maximum allowable emissions of particulate matter shall be calculated by the following equation:

For process weight rates up to 45 tons per hour

$$E = 4.10\left(\frac{2P}{3}\right)^{0.67}$$

or for process weight rates over 45 tons per hour

$$E = 55.0\left(\frac{2P}{3}\right)^{0.11} - 40$$

where E = emission rate in lb/hr. and P = process weight rate in tons/hr.

When one manufacturing operation, or combination of physically connected processes, is vented through separate stacks, the allowable stack emission rate for each stack shall be such that the sum of the emission rates for all of the stacks from that operation is equal to the allowable rates from that operation vented through a single stack. For purpose of emission testing, samples taken of separate stacks within a 3-day period, on the same fertilizer grade, shall be considered as simultaneous for the purpose of determining total operation emissions.

(4) Pulp and Paper Mills - No owner or other person shall cause, suffer, allow or permit particulate matter resulting from the production of pulp and paper to be discharged from stacks or chimneys into the atmosphere in excess of the following:

Facility	Maximum Allowable Emission of Particulate in Lb/Equivalent Ton of Air Dried Pulp
All Recovery Furnace Stacks	3.0
All Dissolving Tank Vents	0.75
All Lime Kiln Stacks	1.0
All Slaker Tank Vents	0.3

(5) Production and Handling of Materials in Sand, Gravel and Crushed Stone Operations - No owner or other person shall cause, suffer, allow or permit any material to be produced, handled, stockpiled or transported without taking measures to reduce to a minimum any particulate matter from becoming airborne. Where it is practical to measure the emission, the emission shall not exceed the limits established by

Table 4.40A. All such airborne particulate matter emanating from the yards, sidings or roads of such operations shall be considered fugitive dust, and shall be controlled as stipulated in Section 4.41. All crushers shall be fitted with liquid sprays or other appropriate systems which effectively limit the escape of airborne dust. Vibrating and shaker screens handling dry materials shall be enclosed or fitted with a collector system which will prevent the release of more than 0.05 grains per standard cubic foot. All feeders, elevators, conveyors, transfer points, discharge points and loading points shall be equipped with collectors, sprays or other means when necessary to minimize the escape of dust.

(6) Coal Thermal Drying Operations of a Coal Preparation Plant - No owner or other person shall cause, suffer, allow or permit particulate matter to be vented into the atmosphere from any thermal drier exhaust in excess of the rates shown in Table 4.40E.

TABLE 4.40E

Process Weight Rate Tons/Hr	Maximum Allowable Emission Rate Lb/Hr
100 or less	45
200 or more	105

for any process weight rate between the two process weight rates stated in Table 4.40E, limitations shall be determined by linear interpolation.

Any stack venting thermal drier exhaust gases into the atmosphere shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.

(7) Air Table Operation of a Coal Preparation Plant - No owner or other person shall cause, suffer, allow or permit particulate matter to be vented into the atmosphere from any air table exhaust in excess of 0.05 grains per standard cubic foot of exhaust gas. In no event shall the emission rate exceed the appropriate limit of Table 4.40A. No owner or other person shall circumvent this subparagraph by adding additional gas to any table or group of air exhausts for the purpose of reducing the grain loading. Any stack venting air table exhaust gases into the atmosphere shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.

(8) Portland Cement Plants - No owner or other person shall cause, suffer, allow or permit the particulate emissions from cement plants to exceed the emission limits contained in Table 4.40A.

(9) Manufacturing of Wood Products - No owner or other person shall cause, suffer, allow or permit particulate matter caused by the working or sanding of wood, to be discharged from any stack, vent or building into the atmosphere without providing, as a minimum for its collection, adequate duct work and properly designed collectors, or such other devices, as approved by the Board. Particulate emissions shall conform to Table 4.40A. If process loading rate cannot be calculated, the grain loading shall not exceed 0.05 grains per standard cubic feet of exhaust gas.

(10) Secondary Metal Operations - No owner or other person shall cause, suffer, allow or permit particulate emissions from secondary metal operations as listed in Appendix C into the atmosphere in excess of the quantity as listed in Table 4.40F.

TABLE 4.40F

Process Weight Rate Lb/Hr	Maximum Allowable Emission Rate Lb/Hr
1,000 or less	3.05
2,000	4.70
3,000	6.35
4,000	8.00
5,000	9.05
6,000	11.30
7,000	12.90
8,000	14.30
9,000	15.50
10,000	16.65
12,000	18.70
16,000	21.60
18,000	22.80
20,000	24.00
30,000	30.00
40,000	36.00
50,000 or more	42.00

For a process weight between any two consecutive process weights stated in Table 4.40F the emission limitation shall be determined by linear interpolation. The permissible emission rates as shown in Table 4.40F shall apply during the melt time but shall not apply during the time of preheat or preparing for shutdown. The exemption for preheating and shutdown shall be limited to two 20-minute periods in a given 8-hour period for each furnace unit.

(11) Light Weight Aggregate Industry - No owner or other person shall cause, suffer, allow or permit the particulate emissions from light weight aggregate plants to exceed the emission limits in Table 4.40G.

TABLE 4.40G

Process Weight Rate Tons/Hr	Maximum Allowable Emission Rate Lb/Hr
.05	.176
.10	.351
.20	.702
.30	1.053
.40	1.404
.50	1.76
.75	2.64
1.0	3.51
1.25	4.38
1.50	5.27
1.75	6.15
2.0	7.02
4.0	14.0
6.0	21.1
8.0	28.1
10.0	35.1
15	52.7
20	70.2
25	87.8
30	105
35	123
40	140
45	158
50	176

For a process weight rate between any two consecutive rates in Table 4.40G, or for rates over 50 tons per hour, the maximum allowable emission of particulate matter may be calculated by the following equation:

$$E = 3.51P$$

where E = emission rate in lb/hr and P = process weight rate in tons/hr.

(12) Feed Manufacturing Operations - No owner or other person shall cause, suffer, allow or permit the particulate emissions from feed manufacturing plants to exceed the emission limits in Table 4.40A.

(i) The process weight rate entry to be used in Table 4.40A for feed manufacturing process units shall be considered as the production rate.

(ii) The process weight rate entry to be used in Table 4.40A for feed manufacturing operations involving physically connected dissimilar processes shall be the sum of the process weight rates of each of the dissimilar processes. The materials handling equipment shall not be considered processes for determination of process rate.

PART IV

EMISSION STANDARDS FOR GASEOUS POLLUTANTS
(RULE EX-5)

4.50 GENERAL PROVISIONS

No owner or other person shall allow the operation of combustion installation and process equipment so as to disperse into the outdoor atmosphere gaseous pollutant emissions in such quantities or concentrations as to injure human, plant or animal life, or cause a condition of air pollution.

4.51 SULFUR OXIDE EMISSIONS AND OTHER GASES AND COMPOUNDS COMTAINING SULFUR

(a) General

Unless covered by a specific emission standard in paragraphs (b) through (h) of this section no owner or other person shall cause, suffer, allow or permit the emission of sulfur dioxide from any source operation which exceeds an in-stack concentration of 2000 ppm by volume.

(c) Sulfuric Acid Plants

(1) The sulfur dioxide in the tail gases from any sulfuric acid manufacturing operation shall not exceed a concentration of 2000 parts per million by volume and a mass emission rate of 27 pounds per ton of 100 percent acid produced when elemental sulfur is used for feed material, or 3500 ppm by volume and a mass emission rate of 45 pounds per ton of 100 percent acid produced when other raw materials such as recycled spent acid and ores are used as feed. These emission levels may be exceeded for a period not longer than 24 hours during startup.

(2) All plants shall reduce acid mist emissions to not more than 5.0 mg H_2SO_4 including uncombined SO_3 per standard cubic foot.

(d) Hydrogen Sulfide

No owner or other person shall cause or permit the continuing emission of any refinery process gas stream or any other process gas stream that contains H_2S in concentration greater than 15 grains per 100 cubic feet of gas without burning or removing H_2S in excess of this concentration provided that SO_2 emissions in the burning operation meet the requirements of Section 4.51.

(e) Sulfur Recovery Operation

The sulfur dioxide in the tail gases from existing sulfur recovery operations shall not exceed a concentration of 8000 parts per million by volume and shall not exceed a mass emission rate as specified in Table 4.51A.

TABLE 4.51A

Sulfur Production Rate (tons/day)	Maximum Allowable SO_2 Mass Emission Rate (lbs/hr)
50	415
100	830
200	1660
300	2490
400	3320
500	4150

(f) Kraft Pulp Mill Total Reduced Sulfur Emissions

The daily average value per quarter for reduced sulfur emissions from recovery furnaces, lime kilns, digestors and multiple effect evaporators of each kraft pulp mill shall not exceed 1.2 pounds of total reduced sulfur as H_2S per ton of equivalent air dry pulp.

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(g) Lightweight Aggregate

No owner or other person shall cause, suffer, allow or permit fuel with a sulfur content in excess of 3 lbs per million Btu to be used in the processing of lightweight aggregate.

(h) Non-Ferrous Smelters

No owner or other person shall cause or permit emissions of sulfur oxides from primary non-ferrous smelters to exceed that set forth according to the following equations:

Copper Smelters : $Y = 0.2X$
Zinc Smelters : $Y = 0.564X^{0.85}$
Lead Smelters : $Y = 0.98X^{0.77}$

where X is the total sulfur fed to the smelter in lb/hr and Y is the allowable sulfur emissions in lb/hr. Note: This provision in effect requires removal of about 90 percent of the input-sulfur to the smelter.

4.52 HYDROCARBON EMISSIONS

(a) General

This section shall apply to stationary sources in AQCR 7 only.

(b) Effluent Water Separators

(1) No owner or other person shall use any compartment of any single or multiple compartment equipment designed to separate water from gasoline or other photochemically reactive volatile organic compounds which compartment receives effluent water containing 200 gallons a day or more of gasoline or other photochemically reactive volatile organic compounds from any equipment processing, refining, treating, storing or handling gasoline or other photochemically reactive volatile organic compounds unless such compartment is equipped with one of the following vapor loss control devices except when gauging or sampling is taking place:

(i) A solid cover with all openings sealed and totally enclosing the liquid contents of that compartment.

(ii) A floating pontoon or double-deck type cover, equipped with closure seals to enclose any space between the cover's edge and compartment wall.

(iii) A vapor recovery system which reduces the emission of all organic compound gases into the atmosphere by at least 90 percent by weight.

(iv) Any system of an efficiency equal to or greater than paragraphs (b)(1)(i), (ii), or (iii) of this section if approved by the Board.

(2) Paragraph (b)(1) of this section shall not apply to any effluent water separator used exclusively in conjunction with production of crude oil, if the water fraction of the oil-water effluent entering the separator contains less than 5 parts per million hydrogen sulfide, organic sulfides or a combination thereof.

(c) Storage of Volatile Organic Compounds

No owner or other person shall place, store or hold in any stationary tank, reservoir or other container of more than 40,000 gallons capacity any volatile organic compound, unless such tank, reservoir or other container is a pressure tank maintaining working pressure sufficient at all times to prevent vapor or gas loss to the atmosphere, or is designed and equipped with one of the following vapor loss control devices, properly installed, in good working order and in operation:

(1) A floating roof, consisting of a pontoon type or double-deck type roof, resting on the surface of the liquid contents and equipped with a closure seal, or seals, to close the space between the roof edge and tank wall. The control equipment provided for in this paragraph shall not be used if the volatile organic compound has vapor pressure greater than 11.1 pounds per square inch absolute under actual average storage conditions. All tank gauging and sampling devices shall be gastight except when gauging or sampling is taking place.

(2) A vapor recovery or vapor loss control system, which reduces the emission of organic compounds into the atmosphere by at least 90 percent by weight. All tank gauging and sampling devices shall be gastight except when gauging or sampling is taking place.

(3) Other equipment of equal efficiency, provided such equipment is approved by the Board.

(d) Bulk Loading of Volatile Organic Compounds

(1) No owner or other person shall load volatile organic compounds into any tank truck, trailer or railroad tank car from any loading facility unless the loading facility is equipped with a vapor collection and disposal system or its equivalent approved by the Board.

(2) Loading shall be accomplished in such a manner that all displaced vapor and air will be vented only to the vapor collection system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish substantially complete drainage before the loading device is disconnected.

(3) The vapor disposal portion of the vapor collection and disposal system shall consist of one of the following:

(i) An absorber system or condensation system which processes all vapors and recovers at least 90 percent by weight of the vapors and gases from the equipment being controlled.

(ii) A vapor handling system which directs all vapors to a fuel gas system.

(iii) Any system of an efficiency equal to or greater than paragraphs (d)(3)(i) or (ii) of this section if approved by the Board.

(4) Paragraph (d)(1) of this section shall apply only to the loading of volatile organic compounds at loading facilities from which 20,000 gallons or more of such compounds are loaded per working day, based on a 12-month average.

(e) Gasoline Transfer Vapor Control

(1) No owner or other person shall transfer gasoline from any delivery vessel into any stationary storage container with a capacity greater than 2,000 gallons unless such container is equipped with a submerged fill pipe and unless the displaced vapors from the storage container are processed by a system that prevents a release to the atmosphere of no less than 90 percent by weight of organic compounds in said vapors displaced from the stationary container location. The vapor recovery portion of the system shall include one or both of the following:

(i) A vapor-tight vapor return line from the storage container to the delivery vessel which shall be connected before gasoline is transferred into the container.

(ii) An absorption system or condensation system or the equivalent which processes and recovers no less than 90 percent by weight of organic compounds in the displaced vapor.

(2) The vapor-laden delivery vessel may be refilled only at facilities equipped for 90 percent vapor recovery in accordance with paragraph (d)(3) of this section. The delivery vessel shall be so designed and maintained as to be vapor-tight at all times. For purposes of this subparagraph, vapor-tight

shall mean capable of holding an initial 4 oz (6.9 inH_2O) vacuum for 5 minutes without dropping below 2.5 oz (4.3 inH_2O).

(3) The provisions of paragraphs (e)(1) and (e)(2) of this section shall not apply to the following:

(i) Service stations whose total average gasoline throughput is less than 26,000 gallons per month based on a 12-month average of bulk receipts.

(ii) Stationary storage containers used predominantly for refueling of mobile farm equipment.

(iii) Transfer made to storage tanks equipped with floating roofs or their equivalent.

(4) **The** provisions of paragraphs (e)(1) and (e)(2) of this section shall be effective on March 1, 1976, except that gasoline storage compartments of 1000 gallons or less in gasoline delivery vehicles in use on February 3, 1974, will not be required to be retrofitted with a vapor return system until January 1, 1977. Owners claiming exemption from this section under paragraph (e)(3)(i) of this section shall submit a record of their monthly bulk receipts to the Board for the 12-month periods ending December 31, 1974, December 31, 1975 and thereafter if requested.

(f) Evaporation Losses From the Filling of Vehicular Tanks

(1) No owner or other person shall transfer gasoline to an automotive fuel tank from gasoline dispensing systems unless the transfer is made through a fill nozzle designed to:

(i) Prevent discharge to the atmosphere of vapors containing organic compounds from either the vehicle filler neck or dispensing nozzle.

(ii) Direct vapor displaced from the automotive fuel tank to a system wherein at least 90 percent by weight of the organic compounds in the displaced vapors are recovered.

(iii) Prevent automotive fuel tank overfills or spillage on fill nozzle disconnect.

(2) The system referred to in paragraph (f)(1) of this section may consist of a vapor-tight vapor return line from the fill nozzle filler neck interface to the dispensing tank or to an adsorption, absorption, incineration, refrigeration-condensation system or the quivalent. Components of the systems required by paragraph (e) of this section may be used for compliance with paragraph (f) (1) of this section.

(3) The provisions of paragraph (f)(1) of this section shall not apply to the following:

(i) Gasoline transfers to pre-1971 model year automobiles or to other vehicles not required to be equipped with fuel evaporative emission control systems under 40 CFR Part 85.

(ii) Service stations whose total average gasoline throughput is less than 26,000 gallons per month, based on a 12-month average of bulk receipts.

(4) The provisions of paragraph (f)(1) of this section shall be effective 18 months after the Board has approved such systems as described in paragraph (f)(2) of this section. Owners claiming exemption from this section under paragraph (f)(3)(ii) of this section shall submit a record of their monthly bulk receipts to the Board for the 12-month period ending January 31, 1976, and January 31, 1977, and thereafter if requested.

(g) Submerged Fill-Storage Vessel

No owner or other person shall place, store or hold in any stationary storage vessel of more than 2,000 gallons capacity, any volatile organic compound unless such vessel is equipped to be filled through a submerged fill pipe or is a pressure tank or is fitted with a system as described in paragraph (c)(1)(ii) of this section.

(h) Pumps and Compressors

All pumps and compressors handling volatile organic compounds shall have mechanical seals or other equipment of equal efficiency for purpose of air pollution control as approved by the Board.

(i) Waste Gas Disposal

(1) No owner or other person shall emit a photochemically reactive organic compound from any plant producing ethylene for chemical feed stock, or utilizing ethylene as raw material, into the atmosphere in excess of 40 pounds per day unless the waste gas stream is properly burned at 1300°F for 0.3 seconds or greater in a direct-flame afterburner or removed by other methods of comparable efficiency.

(2) No owner or other person shall emit continuously gases of photochemically reactive volatile organic compounds to the atmosphere in excess of 40 pounds per day from a vapor blowdown system unless these gases are burned by smokeless flares, or an equally effective control device as approved by the Board. This section is not intended to apply to accidental, emergency or other infrequent emissions of these gases, needed for safe operation of equipment and processes.

(j) Liquid Organic Compounds

(1) No owner or other person shall discharge more than 15 pounds of organic compounds into the atmosphere in any one day from any article, machine, equipment or other contrivance in which any liquid organic compound comes into contact with flame or is baked, heat-cured or heat-polymerized, in the presence of oxygen unless such a discharge represents an overall reduction of 85 percent or greater.

(2) No owner or other person shall discharge more than 40 pounds of organic compounds into the atmosphere in any one day from any article, machine, equipment or other contrivance used under conditions other than described in paragraph (j)(1) of this section, for employing, applying, evaporating or drying any photochemically reactive liquid organic compounds, or material containing such compound, unless all organic compounds discharged from such article, machine, equipment or other contrivance have been reduced by at least 85 percent overall. The limitations prescribed in this paragraph shall not apply to any complying industrial surface coating, which means any paint, lacquer, varnish, ink, adhesive or other surface coating material which emits to the atmosphere organic compounds which are not photochemically reactive. In determining percentages for waterbase paints, the quantity of water shall be in the calculation of percentage.

(3) Any series of articles, machines, equipment or other contrivances designed for processing a continuously moving sheet, web, strip or wire which is subject to any combination of operations described in paragraph (j)(1) or (j)(2) of this section involving any photochemically reactive liquid organic compound or material containing such compound, shall be subject to compliance with paragraph (j)(2) of this section. Where only non-photochemically reactive liquid organic compounds are employed or applied, and where any portion or portions of said series of articles, machines, equipment or other contrivances involving operations described in paragraph (j)(1) of this section said portions shall be collectively subject to compliance with paragraph (j)(1) of this section.

(4) Emissions of organic compounds to the atmosphere from the cleanup with photochemically reactive liquid organic compounds of any article, machine, equipment or other contrivances described in paragraph (j)(1), (j)(2), or (j)(3) of this section shall be included with the other emissions of organic compounds from that article, machine, equipment or other contrivances for determining compliance with this section.

(5) Emissions of organic compounds to the atmosphere as a result of spontaneously continuing the drying of products for the

first 12 hours after their removal from any article, machine, equipment or other contrivance described in paragraph (j)(1), (j)(2), or (j)(3) of this section shall be included with other emissions of organic compounds from that article, machine, equipment or other contrivance, for determining compliance with this section.

(6) Emissions of organic compounds into the atmosphere required to be controlled by paragraph (j)(1), (j)(2), or (j)(3) of this section shall be reduced by:

(i) Incineration, provided that 90 percent or more of the carbon in the organic compound being incinerated is oxidized to carbon dioxide, or

(ii) Adsorption, or

(iii) Processing in a manner determined by the Board to be not less effective than paragraphs (j)(6)(i) or (ii) of this section

(7) An owner incinerating, adsorbing or otherwise processing organic compounds pursuant to this section shall provide, properly installed, calibrated, maintained and operated, devices as specified by the Board, for indicating temperature, pressure, rate of flow or other operating conditions necessary to determine the degree and effectiveness of air pollution control methods.

(8) Any owner using liquid organic compounds or any materials containing liquid organic compounds shall upon request supply the Board in the manner and form prescribed by it, written evidence of the chemical compositions, physical properties and amount consumed for each liquid organic compound used.

(9) The provision of paragraph (j) of this section shall not apply to:

(i) The transport or storage of liquid organic compounds or materials containing liquid organic compounds.

(ii) The use of equipment for which other requirements are specified by paragraph (b), (c), (d), (e), (f), or (g) of this section or which are exempt from air pollution control requirements by said paragraphs.

(iii) The spraying or application with other equipment of insecticides, pesticides or herbicides.

(iv) The employment, application, evaporation or drying of saturated halogenated hydrocarbons or perchlorethylene.

(v) Development or research laboratory operation involving the use of photochemically reactive liquid organic compounds.

(vi) The use of any material, in any article, equipment or any other contrivance described in (j)(1), (j)(2), (j)(3) or (j)(4) of this section if:

a. The volatile content of such material consists only of water and liquid organic compounds, and

b. The liquid organic compounds comprise not more than 20 percent of said volatile content, and

c. The volatile content is not photochemically reactive.

(10) Notwithstanding the above provisions, after May 31, 1974, no owner or other person shall cause, suffer, allow or permit the use of any photochemically reactive liquid organic compound for the purpose of drycleaning of clothing or household items.

(k) Architectural Coatings

(1) No owner or other person shall sell or offer for sale in containers exceeding 1 gallon capacity, any architectural coating containing photochemically reactive organic compound as solvent.

(2) No owner or other person shall employ, apply, evaporate, or dry any architectural coating, purchased in containers exceeding 1 gallon capacity, containing photochemically reactive organic compound as solvent.

(3) No owner or other person shall thin or dilute any architectural coating with a photochemically reactive organic compound.

(1) Disposal and Evaporation of Liquid Organic Compounds

No owner or other person shall, during any one day, dispose of a total of more than 1-1/2 gallons of any photochemically reactive liquid organic compound by any means which will permit the evaporation of such compound into the atmosphere.

4.53 NITROGEN OXIDES EMISSIONS

Nitric Acid Manufacture - No owner or other person shall cause, suffer, allow or permit the emission of nitrogen oxides (expressed as nitrogen dioxide) from nitric acid manufacturing plants into the outdoor atmosphere in excess of 5.5 pounds per ton of 100 percent acid produced.

4.54 VOLATILE ORGANIC COMPOUND EMISSIONS - GENERAL

(a) General

(1) The provisions of this section shall be effective upon the date of approval by the U.S. Enviromental Protection Agency.

(2) The provisions of this section shall be applicable only in nonattainment areas for ozone.

(3) The provisions of this section, unless specified otherwise, shall be applicable to sources of non-methane volatile organic compounds for which emissions standards are prescribed under this section.

(4) The provisions of this section shall not be applicable to:

(i) Sources whose emissions of volatile organic compounds are not more than 7.3 tons per year, 40 pounds per day or 8 pounds per hour, provided the emission rates are determined in a manner acceptable to the Board; and

(ii) Sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance provided;

a. The operation of the source is not an integral part of the production process;

b. The emissions from the source do not exceed 800 pounds per 30-day period; and

c. The exemption is approved by the Board.

(b) Petition for Alternative Control Methods

(1) If the owner of any source of volatile organic compounds can demonstrate that compliance with Sections 4.54 thru 4.57 would be technologically or economically infeasible he may petition the Board to allow the use of an alternative control method for the reduction of volatile organic compound emissions. Petition must be made for each affected facility within a given stationary source. The petition must be submitted in writing to the Board and must contain:

(i) The name, address and registration number of the plant and the name and telephone number of the company officer over whose signature the petition is submitted;

(ii) A description of all operations conducted at the location to which the petition applies and the purpose that the volatile organic compound emitting equipment serves within the operation;

(iii) Reference to the specific control method under Sections 4.54 thru 4.57 for which an alternative control method is proposed;

(iv) A description of the proposed alternative control method, the magnitude of volatile organic compound emission reduction which will be achieved, and the quantity and composition of volatile organic compounds which will be emitted if the alternative control method is instituted;

(v) A schedule for the installation and/or institution of the alternative control method; and

(vi) Certification that emissions of all other air pollutants from the subject stationary source are in compliance with all applicable local state and federal laws and regulations.

(2) The Board may approve a petition for alternative control method if:

(i) The petition is submitted in accordance with paragraph (b)(1) of this section;

(ii) The Board determines that the petitioner cannot comply with Sections 4.54 thru 4.57 because of technological or economical infeasiblity;

(iii) Emissions of all other air pollutants from the subject stationary source are in compliance with, or under a schedule for compliance as expeditiously as practicable with, all applicable local, state, and federal regulations; and

(iv) The petition contains a schedule for achieving and maintaining reduction of volatile organic compound emissions to the maximum extent feasible and as expeditiously as practicable.

(c) Solvent Metal Cleaning

(1) Conveyorized Degreasing

(i) No owner or other person shall use or permit the use of any conveyorized degreaser unless such degreaser is equipped with a control method that will remove or destroy no less than 70 percent by weight of volatile organic compound emissions.

(ii) Achievement of the emission standard in paragraph (c)(1)(i) of this section by use of the methods in Sections I.a.1 and 4. of Appendix M will be acceptable to the Board.

(2) Open Top Vapor Degreasing

(i) No owner or other person shall use or permit the use of any open top vapor degreaser unless such degreaser is equipped with a control method that will remove or destroy no less than 75 percent by weight of volatile organic compound emissions.

(ii) Achievement of the emission standard in paragraph (c)(2)(i) of this section by use of the methods in Sections I.a.2. and 4. of Appendix M will be acceptable to the Board.

(3) Cold Cleaning

(i) No owner or other person shall use or permit the use of any cold cleaner unless such cleaner is equipped with a control method that will remove or destroy no less than 85 percent by weight of volatile organic compound emissions.

(ii) Achievement of the emission standard in paragraph (c)(3)(i) of this section by use of the methods in Section I.a.3. and 4. of Appendix M will be acceptable to the Board.

(d) Disposal

No owner or other person shall dispose of or permit the disposal of volatile organic compounds without taking measures, to the extent practicable, consistent with good air pollution control practices of minimizing emissions.

(e) Incinerators/Afterburners

The operation of incinerators/afterburners and associated capture systems for the purpose of complying with Sections 4.54 thru 4.57 will not be required during the months of October, November, December, January, February, March and April provided that the operation of such devices is not required for purposes of occupational health or safety or for the control of toxic substances, hazardous air pollutants, objectional odors or other regulated pollutants.

(f) Filling of Storage Vessels

(1) No owner or other person shall use or permit the use of any stationary storage vessel of more than 2,000 gallons capacity for storage of any volatile organic compound unless such vessel is equipped with a control method that will remove or destroy no less than 60 percent by weight of volatile organic compound emissions during the filling of such vessel.

(2) Achievement of the emission standard in paragraph (f)(1) of this section by use of the methods in Section I.b. of Appendix M will be acceptable to the Board.

(3) The provisions of paragraph (f) of this section shall not be applicable to the following:

(i) Facilities subject to the provisions of Section 4.56.

(ii) Facilities using volatile organic compounds with a vapor pressure less than 1.5 pounds per square inch absolute under actual storage conditions, or, in the case of filling, under actual filling conditions.

(g) Volatile Organic Compound Storage - Fixed Roof Tanks

(1) No owner or other person shall use or permit the use of any fixed roof tank of more than 40,000 gallons capacity for storage of volatile organic compounds, unless such tank is equipped with a control method which will remove or destroy no less than 90 percent by weight of volatile organic compound emissions.

(2) Achievement of the emission standard in paragraph (g)(1) of this section by use of control methods in Section I.c. of Appendix M wil be acceptable to the Board.

(3) The provisions of paragraph (g) of this section shall not be applicable to the following:

(i) Facilities subject to the provisions of Section 4.56.

(ii) Facilities using volatile organic compounds with a vapor pressure less than 1.5 pounds per square inch absolute under actual storage conditions, or, in the case of filling, under actual filling conditions.

4.55 VOLATILE ORGANIC COMPOUND EMISSIONS - COATING INDUSTRY

(a) General

(1) The provisions of this section shall be effective upon the date of approval by the U.S. Environmental Protection Agency.

(2) The provisions of this section shall be applicable only in nonattainment areas for ozone.

(3) The provisions of this section, unless specified otherwise, shall be applicable to sources of nonmethane volatile organic compounds for which emission standards are prescribed under this section.

(4) The provisions of this section shall not be applicable to:

(i) Sources whose emissions of volatile organic compounds are not more than 7.3 tons per year, 40 pounds per day or 8 pounds per hour, provided the emission rates are determined in a manner acceptable to the Board; and

(ii) Sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance provided:

_a_. The operation of the source is not an integral part of the production process;

_b_. The emissions from the source do not exceed 800 pounds in any 30 day period; and

_c_. The exemption is approved by the Board.

(5) The emission standards prescribed under this section generally provide that acceptable compliance be achieved by the use of low solvent content coating

technology. Any owner may use add on control methods in lieu of low solvent content technology provided that:

(i) The design operation and efficiency of the control method is certified in writing by such owner and approved by the Board; and

(ii) The efficiency of the control method will remove or destroy no less than 90 percent by weight of volatile organic compounds emitted.

(6) The emission standards in this section shall be the daily averages for all colors used. Compliance may be determined by analysis of coating materials, emission testing, material balances or any other method acceptable to the Board.

(b) Plant-wide Emission Reduction Plans

An owner may implement a plant-wide emission reduction plan, instead of having each coating line comply with the emission standards prescribed under this section, upon completion of the following:

(1) The owner demonstrates, by acceptable methods, that sufficient reductions in volatile organic compound emissions may be obtained by controlling other facilities within the plant to the extent necessary to compensate for all excess emissions which result from one or more coating lines not achieving the prescribed standard. Such demonstration shall be described in writing and shall include:

(i) A complete description of the coating line or lines which will not comply with the applicable emission standard;

(ii) Quantification of emissions, in terms of pounds per day of volatile organic compounds, which are in excess of the applicable emission standard for each coating line subject to this section:

(iii) A complete description of each facility and the related control system, if any, for those facilities within the plant where emissions will be decreased to compensate for excess emissions from each coating line subject to this section;

(iv) Quantification of emissions, in terms of pounds per day of volatile organic compounds, for each facility subject to this section both before and after the improvement or installation of any applicable control system, or any physical or operational changes to such a facility or facilities to reduce emissions and the date on which such reductions will be achieved; and

(v) A description of the procedures and methods used to determine the emissions of volatile organic compounds.

(2) The owner demonstrates that the plant-wide emission reduction plan does not include decreases in emissions resulting from requirements of any other applicable emission standard. The plant-wide emission reduction plan may include decreases in emissions accomplished through installation or improvement of a control system or through physical or operational changes to facilities, including permanently reducing production or closing a facility, located on the premises of a surface coating operation.

(3) The Board approves the implementation of a plant-wide emission reduction plan as an alternative to compliance with the emission standards prescribed in this section. Upon approval, any emission in excess of those established for each facility under the plan shall be a violation of these regulations.

(c) Large Appliance Coating

(1) Prime or Single Coat Application

(i) No owner or other person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 2.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(ii) Achievement of the emission standard in paragraph (c)(1)(i) of this section by use of methods in Section II.a.1. of Appendix M will be acceptable to the Board.

(2) Topcoat or Sound Deadener Application

(i) No owner or other person shall discharge or cause the discharge into the atmosphere from any coating line any volatile organic compound in excess of 2.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(ii) Achievement of emission standard in paragraph (c)(2)(i) of this section by use of methods in Section II.a.2. of Appendix M will be acceptable to the Board.

(3) Paragraphs (c)(1) and (2) of this section shall not be applicable to the use of quick-drying lacquers for the repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 2 quarts in any 8-hour period.

(d) Magnet Wire Coating

(1) No owner or other person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 1.7 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(2) Achievement of the emission standard in paragraph (d)(1) of this section by use of mehtods in Section II.b. of Appendix M will be acceptable to the Board.

(e) Automobile and Light Duty Truck Coating

(1) Prime Application

(i) No owner or other person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 3.2 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(ii) Achievement of the emission standard in paragraph (e)(1)(i) of this section by use of methods in Section II.c.1 of Appendix M will be acceptable to the Board.

(2) Topcoat Application

(i) No owner or other person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 4.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(ii) Achievement of the emission standard in paragraph (e)(2)(i) of this section by use of methods in Section II.c.2. of Appendix M will be acceptable to the Board.

(3) Final Repair Application

(i) No owner or othe person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 4.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(ii) Achievement of the emission standard in paragraph (e)(3)(i) of this section by use of methods in Section II.c.3 of Appendix M will be acceptable to the Board.

(4) The provisions of paragraphs (e)(1) and (2) of this section shall not be applicable to the use of wheel enamels, anit-rust coatings, and sealers or other coating operations not associated with prime or topcoat application to the vehicle body.

(5) The provisions of paragraph (e) of this section shall not be applicable to vehicle refinishing operations.

(f) Can Coating

(1) Sheet Basecoat (exterior and interior) and Overvarnish; Two-Piece Can Exterior (basecoat and overvarnish)

(i) No owner or other person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 2.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(ii) Achievement of the emission standard in paragraph (f)(1)(i) of this section by use of methods in Section II.d.1. of Appendix M will be acceptable to the Board.

(2) Two and Three-Piece Can Interior Body Spray; Two-Piece Can Exterior End (spray or roll coat)

(i) No owner or other person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 4.2 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(ii) Achievement of the emission standard in paragraph (f)(2)(i) of this section by use of methods in Section II.d.2. of Appendix M will be acceptable to the Board.

(3) Three-Piece Can Side-Seam Spray

(i) No owner or other person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 5.5 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(ii) Achievement of the emission standard in paragraph (f)(3)(i) of this section by use of methods in Section II.d.3. of Appendix M will be acceptable to the Board.

(4) End Sealing Compound Coating

(i) No owner or other person shall discharge or cause the discharg into the atmosphere from a coating line any volatile organic compound in excess of 3.7 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(ii) Achievement of the emission standard in paragraph (f)(4)(i) of this section by use of methods in Section II.d.4 of Appendix M will be acceptable to the Board.

(g) Metal Coil Coating

(1) No owner or other person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 2.6 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(2) Achievement of the emission standard in paragraph (g)(1) of this section by use of methods in Section II.e. of Appendix M will be acceptable to the Board.

(h) Paper and Fabric Coating

(1) No owner of other person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 2.9 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(2) Achievement of the emission standard in paragraph (h)(1) of this section by use of methods in Section II.f. of Appendix M will be acceptable to the Board.

(3) The provisions of paragraph (h) of this section shall not be applicable to the production of packaging materials and to printing (graphic arts) operations to the extent provided in paragraph (h)(4) of this section.

(4) The production of packaging materials involves two principal operations which emit volatile organic compounds: the coating and laminating of paper, film, foil, and the printing of words, designs and pictures upon webs of paper, film and foil. For the purposes of applicability of the above emission standard, coating is the application of a uniform layer of material across the entire width of a web and printing is the formation of words, designs, and pictures, usually by a series of application rolls each with only partial coverage. The above emission standard applies to coating and laminating operations in the production of packaging materials, but does not apply to printing operations in the production of packaging materials and to publication rotogravure printing operations. However, all units in a machine which has both coating and printing units will be considered as performing a printing operation. A typical operation is as follows: the first unit applies a uniform background color; subsequent units print additional colors; the final unit applies a varnish overcoat. Such a machine would not be subject to the above emission standard.

(i) Vinyl Coating

(1) No owner or other person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 3.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(2) Achievement of the emission standard in paragraph (i)(1) of this section by use of methods in Section II.g. of Appendix M will be acceptable to the Board.

(j) Metal Furniture Coating

(1) No owner or other person shall discharge or cause the discharge into the atmosphere from a coating line any volatile organic compound in excess of 3.0 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

(2) Achievement of the emission standard in paragraph (j)(1) of this section by use of methods in Section II.h. of Appendix M will be acceptable to the Board.

4.56 VOLATILE ORGANIC COMPOUND EMISSIONS - PETROLEUM INDUSTRY

(a) General

(1) The provisions of this section shall be effective upon the date of approval by the U.S. Environmental Protection Agency.

(2) The provisions of this section shall be applicable only in nonattainment areas for ozone.

(3) The provisions of this section, unless specified otherwise, shall be applicable to sources of non-methane volatile organic compounds for which emission standards are prescribed under this section.

(4) The provisions of this section shall not be applicable to sources using petroleum liquids with a vapor pressure less than 1.5 pounds per square inch absolute under actual storage conditions, or, in the case of loading or processing, under actual loading or processing conditions. (Kerosene and fuel oil used for household heating have vapor pressures of less than 1.5 pounds per square inch absolute under actual storage conditions; therefore, kerosene and fuel oil are not subject to the provisions of this section when used or stored at ambient temperatures.)

(5) The provisions of this section shall not be applicable to:

(i) Sources whose emissions of volatile organic compounds are not more than 7.3 tons per year, 40 pounds per day or 8 pounds per hour, provided the emission rates are determined in a manner acceptable to the Board; and

(ii) Sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance provided:

a. The operation of the source is not an integral part of the production process;

b. The emissions from the source do not exceed 800 pounds per 30-day period; and

c. The exemption is approved by the Board.

(b) Gasoline Bulk Loading - Bulk Terminals

(1) No owner or other person shall discharge or cause the discharge into the atmosphere from a bulk gaso-

line terminal (including any appurtenant equipment necessary to load the tank truck compartments) any volatile organic compound in excess of .67 pounds per 1000 gallons of gasoline loaded.

(2) Achievement of the emission standard in paragraph (b)(1) of this section by use of methods in Section III.a. of Appendix M will be acceptable to the Board.

(c) Miscellaneous Petroleum Refinery Sources

(1) Vacuum Producing Systems

(i) No owner or other person shall use or permit the use of a vacuum producing system unless such system is equipped with a vapor control system that will remove or destroy no less than 95 percent by weight of volatile organic compound emissions.

(ii) Achievement of the emission standard in paragraph (c)(1)(i) of this section by use of methods in Section III.b.1. of Appendix M will be acceptable to the Board.

(2) Wastewater Separators

(i) No owner or other person shall use or permit the use of any wastewater separator unless such separator is equipped with a vapor control system that will remove or destroy no less than 95 percent by weight of volatile organic compound emissions.

(ii) Achievement of the emission standard in paragraph (c)(2)(i) of this section by use of methods in Section III.b.2. of Appendix M will be acceptable to the Board.

(3) Process Unit Turnarounds

(i) No owner or other person shall conduct or or permit the conduct of a process unit turnaround unless such unit is equipped with a vapor control system that will remove or destroy no less than 95 percent by weight of volatile organic compound emissions.

(ii) Achievement of the emission standard in paragraph (c)(3)(i) of this section by use of methods in Section III.b.3. of Appendix M will be acceptable to the Board.

(d) Transfer of Gasoline - Gasoline Dispensing Facilities - Stage I

(1) No owner or other person shall transfer or permit the transfer of gasoline from any tank truck into any stationary storage container with a capacity greater than 2,000 gallons unless such container is equipped with a vapor control system that will remove or destroy no less than 90 percent by weight of volatile organic compound emissions.

(2) Achievement of the emission standard in paragraph (d)(1) of this section by use of methods in Section III.c. of Appendix M will be acceptable to the Board.

(3) The provisions of paragraph (d) of this section shall not be applicable to the following:

(i) Gasoline dispensing facilities located in rural nonattainment areas specified in Appendix K.

(ii) Gasoline dispensing facilities whose total average gasoline throughput is less than 20,000 gallons per month based on the monthly average of bulk receipts for the most recent 12-month period.

(iii) Stationary storage containers used predominantly for refueling of mobile farm equipment.

(iv) Transfers made to storage tanks equipped with floating roofs or their equivalent.

(e) Gasoline Bulk Loading - Bulk Plants

(1) No owner or other person shall use or permit the use of any bulk gasoline plant (including any appurtenant equipment necessary to load or unload tank trucks and account trucks) unless such plant is equipped with a vapor control system that will remove, destroy or prevent the discharge into the atmosphere no less than 77 percent by weight of volatile organic compound emissions.

(2) Achievement of the emission standard in paragraph (e)(1) of this section by use of methods in Section III.d. of Appendix M will be acceptable to the Board.

(3) The provisions of paragraph (e) of this section shall not be applicable to the following:

(i) Facilities located in rural nonattainment areas specified in Appendix K.

(ii) Facilities whose total average gasoline throughput is less than 4,000 gallons per working day based on the daily average of bulk receipts for the most recent 12-month period.

(f) Tank Trucks

(1) No owner or other person shall use or permit the use of any tank truck that is exclusively loaded or unloaded at facilities subject to the provision of paragraphs (b), (d) and (e) of this section unless such truck is designed and maintained to be vapor-tight at all time.

(2) Vapor-laden tank trucks serving facilities subject to paragraphs (d) and (e) of this section may be refilled only at facilities in compliance with paragraphs (b) of this section.

(3) Tank truck and account truck hatches shall be closed at all times during loading and unloading operations at facilities subject to the provisions of paragraphs (b), (d) and (e) of this section except when the submerged fill pipe method is used.

(g) Petroleum Liquid Storage - Fixed Roof Tanks

(1) No owner or other person shall use or permit the use of any fixed roof tank of more than 40,000 gallons capacity for storage of petroleum liquids, unless such tank is equipped with a control method which will remove or destroy no less than 90 percent by weight of volatile organic compound emissions.

(2) Achievement of the emission standard in paragraph (g)(1) of this section by use of methods in Section III.e. of Appendix M will be acceptable to the Board.

(3) The provisions of paragraph (g) of this section shall not be applicable to fixed roof tanks having capacities less than 400,000 gallons used to store produced crude oil and condensate prior to lease custody transfer.

4.57 VOLATILE ORGANIC COMPOUND EMISSIONS - MISCELLANEOUS INDUSTRY

(a) General

(1) The provisions of this section shall be effective upon the date of approval by the U.S. Environmental Protection Agency.

(2) The provisions of this section shall be applicable only in nonattainment areas for ozone.

(3) The provisions of this section, unless specified otherwise, shall be applicable to sources of non-methane volatile organic compounds for which emission standards are prescribed under this section.

(4) The provisions of this section shall not be applicable to:

(i) Sources whose emissions of volatile organic compounds are not more than 7.3 tons per year, 40 pounds per day, or 8 pounds per hour, provided the emission rates are determined in a manner acceptable to the Board; and

(ii) Sources used exclusively for chemical or physical analysis or detmination of product quality and commercial acceptance provided:

a. The operation of the source is not an integral part of the production process;

b. The emissions from the source do not exceed 800 pounds per 30-day period; and

c. The exemption is approved by the Board.

(b) Asphalt Paving Operations

(1) No owner or other person shall cause, allow or permit the manufacture, mixing, storage, use or application of liquefied asphalt for paving operations unless such asphalt is of the emulsified asphalt type, containing less than 15% by volume of volatile organic compounds.

(2) Not withstanding the provisions of paragraph (b)(1) of this section, the manufacture, mixing, storage, use or application of cutback asphalt is permitted under any of the following circumstances:

(i) When stockpile storage greater than one month is necessary.

(ii) When use or application during the months of November through March is necessary.

(iii) When use as a penetrating prime coat or tack coat is necessary.

(3) The provision of paragraph (b)(1) of this section does not preclude the manufacture, mixing, storage, use or application of heated asphalt cement as a component in asphaltic concrete mixing or for priming in surface treatment.

PART IV

EMISSION STANDARDS FOR ODOR (RULE EX-6)

4.60 APPLICABILITY

This rule shall apply to all operations that produce odorous emissions.

4.61 GENERAL

No owner or other person shall cause, suffer, allow or permit any source to discharge air pollutants which cause an odor objectionable to individuals of ordinary sensibility.

4.62 DETERMINATION OF VIOLATION

(a) The determination of objectionable odor is to be made after a thorough review of all data or evidence relating to the situation which may be obtained by an investigation directed by the Board by holding a public hearing in accordance with Section 2.04(a)(1) to hear compliants. The investigation may include use of an odor panel survey and/or other methods approved by the Board.

(b) Upon determination that an odor is violative of Section 4.61, the owner shall employ such measures as may be approved by the Board for the economically and technologically feasible control of odorous emissions.

4.63 EXCEPTION

This rule is not intended to be applied to accidental or other infrequent emissions of odors.

PART IV

EMISSION STANDARDS FOR INCINERATORS†
(RULE EX-7)

4.70 GENERAL

No owner or other person shall cause, suffer, allow or permit the operation of an incinerator so as to discharge into the atmosphere particulate matter sufficient to cause a condition of air pollution.

4.71 STANDARD FOR PARTICULATE MATTER

Incinerators shall not discharge particulate matter in excess of 14 grains per standard cubic foot of dry flue gas corrected to 12 percent carbon dioxide (without the contribution of auxiliary fuel).

4.72 FLUE-FED INCINERATORS

Flue-fed incinerators (those which use the same flue for feeding the refuse and discharging the gases of combustion) are prohibited for incineration usage.

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†A variance was granted to the City of Alexandria to allow operation in excess of federally approved particulate emission limitations for incinerators until December 31, 1979. See "Non-Regulatory" section for text of variance.

PART IV

EMISSION STANDARDS FOR COAL REFUSE DISPOSAL AREAS
(RULE EX-8)

4.80 PURPOSE

This rule is adopted for the purpose of preventing, abating and controlling air pollution caused by air pollutants discharged from burning coal refuse disposal areas.

4.81 NEW COAL REFUSE DISPOSAL AREAS

The operation of a coal refuse disposal area, not used for the purpose of coal refuse disposal prior to the effective date of this rule, is prohibited unless the procedures for disposal have been submitted to and approved by the Board prior to disposal. Application shall be made according to procedures approved by the Board.

4.82 EXISTING COAL REFUSE DISPOSAL AREAS

Within 90 days after the effective date of this rule or after the application procedures become available, whichever is later, or within such additional period as the Board may authorize, any owner who desires to continue the operation of an existing coal refuse disposal area shall make application to the Board according to Board procedures, for approval to continue operation of such area. The operation of an existing coal refuse disposal area may continue while the application is under consideration by the Board and thereafter unless disapproved by the Board.

4.83 CONDITIONS FOR APPROVAL

(a) In approving coal refuse disposal areas, the Board may require compliance with certain operational conditions (See Appendix E).

(b) In no case shall refuse and like materials (other than coal refuse) be deposited on or near any coal refuse disposal area.

4.84 IGNITION OF A COAL REFUSE DISPOSAL AREA

The deliberate ignition of a coal refuse disposal area or the ignition of any materials on such an area by any owner or other person is prohibited.

4.85 BURNING COAL REFUSE DISPOSAL AREAS

(a) Each burning coal refuse disposal area which causes air pollution will be considered on an individual basis by the Board. After considering the established facts and circumstances of the particular case, the Board will determine and may order the effectuation of those air pollution control measures which the Board deems reasonably adequate for each such coal refuse disposal area.

(b) With respect to all other burning coal refuse disposal areas, the owner of the coal refuse disposal areas or the land on which such coal refuse disposal areas are located shall use due diligence to control air pollution from such coal refuse disposal areas. The Board shall determine what constitutes due diligence.

(c) When the Board determines that air pollution exists or may be created, the owner of the coal refuse disposal area or the owner of the land on which such coal refuse disposal area is located shall submit to the Board a satisfactory program setting forth methods and procedures to eliminate, prevent or reduce such air pollution. This program shall be submitted within 30 days after notification and shall contain sufficient information to establish that such program can be executed with due diligence.

4.86 EXCEPTIONS

Nothing in this rule is intended to permit any practice which is a violation of applicable laws, ordinances, regulations and orders of the governmental entities having jurisdiction.

PART IV

EMISSION STANDARDS FOR
COKE OVENS AND CHARCOAL KILNS
(RULE EX-9)

4.90 BEEHIVE COKE OVENS

Beehive coke ovens should be constructed so that all emissions, both gaseous and particulate matter, are directed through an air pollution control device prior to emission to the atmosphere. The control device should also provide for the complete combustion of all gases emitted from the oven.

4.91 OTHER BY-PRODUCT COKE OVENS

(a) All by-product coke oven batteries shall have air pollution control equipment which will control pollutant emissions according to applicable provisions of these regulations.

(b) All by-product coke ovens shall control visible emissions to the extent provided in Rule EX-2 except that when charging and discharging coke ovens, visible emissions greater than that provided in Section 4.20(a) shall be permitted for a period or periods aggregating no more than 2 minutes per charge and 1 minute per push.

4.92 CHARCOAL KILNS

(a) Charcoal kilns should be constructed so that all emissions, both gaseous and particulate matter, are directed through an air pollution control device prior to emission to the atmosphere. The control device should provide for the complete combustion of all gases from the kiln.

(b) Screening and crushing areas, loading and transfer points or any other place within the plant where fugitive dust may originate should be enclosed and controlled according to Section 4.41.

(c) Any air pollution control device used should provide for control of all pollutant emissions according to applicable provisions of these regulations.

PART IV

EMISSION STANDARDS FOR MOBILE SOURCES (RULE EX-10)

4.100 MOTOR VEHICLES

(a) Emission Control Systems

(1) No owner or other person shall cause, suffer, allow or permit the removal, disconnection or disabling of a crankcase emission control system or device, exhaust emission control system or device, fuel evaporative emission control system or device, or other air pollution control system or device which has been installed on a motor vehicle in accordance with federal laws and regulations while such motor vehicle is operating in the Commonwealth of Virginia.

(2) Nor shall any owner or other person defeat the design purpose of any such motor vehicle pollution control system or device by installing therein or thereto any part or component which is not a standard factory replacement part or component of the device.

(3) Nor shall the motor vehicle or its engine be operated with the motor vehicle pollution control system or device removed or otherwise rendered inoperable.

(4) The provisions of this section shall not prohibit or prevent shop adjustments and/or replacement of equipment for maintenance or repair or the conversion of engines to low polluting fuels, such as, but not limited to, natural gas or propane.

(b) Visible Emissions

(1) No owner or other person shall cause or permit the emission of visible air pollutants from gasoline-powered motor vehicles for longer than 5 consecutive seconds after the engine has been brought up to operating temperature.

(2) No owner or other person shall cause or permit the emission of visible air pollutants from diesel-powered motor vehicles of a density equal to or greater than 20 percent opacity for longer than 10 consecutive seconds after the engine has been brought up to operating temperature.

(c) The propulsion engine of a commercial motor vehicle parked in a business or residential area shall not be left running more than 3 minutes when the vehicle is parked, except when the propulsion engine provides auxiliary service other than for heating or air conditioning.

4.101 OTHER MOBILE SOURCES

(a) General

All mobile sources operating in the confines of this State, including the air space over this State, shall control their emissions in strict accordance with the applicable Federal laws and regulations.

(b) Visible Emissions

The provisions of Section 4.20 shall apply to the discharge of visible emissions from all mobile sources, unless specified otherwise in paragraph (c) of this section.

(c) Exceptions

(1) Aircraft - Paragraph (b) of this section shall not apply to aircraft.

(2) Diesel Locomotives - Visible emissions from operating diesel-powered locomotives shall not exceed a density greater than 30 percent opacity unless the locomotive is:

(i) Accelerating under load and then only for a maximum of 40 consecutive seconds for stabilization of the new operating condition.

(ii) Being loaded after a period of idle and then only for a maximum period of 4 consecutive minutes after the changed condition.

(iii) Started cold and then only for a maximum of 30 consecutive minutes after such a start.

(iv) Being tested, adjusted, and/or broken-in after rebuilding or repair and then only for maximum periods of 3 consecutive minutes for an aggregate of no more than 10 minutes in any 60-minute period.

(3) Ships and Other Watercraft - Visible emissions in excess of paragraph (b) of this section are authorized when not at dock and for brief periods when at dock under the following conditions:

(i) During dock trials as required to test and calibrate the ship's machinery control systems.

(ii) When lighting off a cold machinery plant and getting under way.

(iii) When used on shore to simulate dock and/or sea trials.

(iv) When soot blowing. Soot blowing shall be limited to once in each 24-hour period and shall be allowed only when wind conditions and direction are such as to prevent a public nuisance and/or endangerment of the health and safety of persons and property both ashore and afloat.

(v) During upset or breakdown, provided a report of the circumstances is made by the owner to the Board as soon as possible. When appropriate, a further report of the complete correction of the fault shall also be made.

(4) Other Diesel-powered Mobile Sources - Visible emissions from diesel-powered mobile sources, which are not otherwise regulated by these regulations shall not exceed 20 percent opacity for longer than 10 consecutive seconds after the engine has been brought up to operating temperature.

4.102 EXEMPTIONS

Mobile sources used solely for ceremonial purposes, antiques and others of historical significance shall be exempt from the provisions of this rule.

PART VII

AIR POLLUTION EPISODE

7.01 GENERAL

(a) An Air Pollution Episode Plan provides procedures to be followed whenever the air quality has the potential of reaching levels which could cause significant harm to public health.

(b) Whenever the Board determines that the accumulation of air pollution may attain, is attaining or has attained a level or levels considered injurious to human health, Air Pollution Episode Stages designated as Watch, Health Advisory, Alert, Warning and Emergency shall be declared. In making a determination, the criteria defined in Section 7.02 shall be used as guidance.

(c) To assure compliance with this part, owners of sources as applicable shall submit standby emission reduction plans in accordance with Section 7.03. In accordance with such standby emission reduction plans, control requirements as specified in Section 7.04 shall be implemented as a designated level is reached.

(d) Nothing contained in this part shall be construed as allowing any owner or other person to be in violation of any provision of these regulations or any other applicable regulations, laws, ordinances or orders of the governmental entities having jurisdiction.

7.02 EPISODE DETERMINATION

(a) A condition justifying the proclamation of a Watch, Health Advisory, Warning or Emergency Stage shall be deemed to exist whenever the Board determines that the accumulation of one or more air pollutants in any place, locality, county or other area in the State may attain, is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a threat to the public health. In making this determination the conditions specified in paragraphs (b), (c) and (d) of this section shall be used as guidance.

(b) Episode Criteria

(1) Watch Stage

An internal administrative watch shall be declared by the Board whenever the national, local or staff meteorologist issues a forecast indicating an atmospheric stagnation will cover any substantial portion of the State for an extended period. Such a weather forecast will indicate meteorological conditions which are expected to inhibit pollutant dispersion. The watch shall be in effect for those areas of the State covered by the weather forecast and it shall continue throughout the atmospheric stagnation period. Such weather forecasts indicating atmospheric stagnation will take the form of:

(i) A regional Air Stagnation Advisory, including any substantial part of the State, issued by the National Weather Service.

(ii) A forecast by the staff meteorologist indicating local meteorological conditions which inhibit dispersion for an extended period of time.

(2) Health Advisory Stage (AQCR 7 only)

A Health Advisory Stage shall be declared by the Board, when the one-hour average oxidant pollutant level reaches 200 ug/m^3 (.1 ppm) at any monitoring site concurrent with:

(i) Consultation with the national, local or staff meteorologist which indicates that an atmospheric stagnation exists and/or

(ii) A determination by the Board that the pollutant level is representative of air quality in the Air Quality Control Region. Consultation with the air pollution control agencies of the affected jurisdictions will be accomplished to help evaluate local situations.

(3) Alert Stage

An Alert Stage shall be declared by the Board when anyone of the following pollutant levels is reached at any monitoring site concurrent with

(i) Consultation with the national, local or staff meteorologist which indicates that an atmospheric stagnation exists and/or

(ii) A determination by the Board that the pollutant level is representative of air quality in an Air Quality Control Region and the concentrations of pollutants can be expected to remain at the following indicated levels for 12 or more hours or increase, or in the case of oxidants, the situation is likely to recur within the next 24 hours unless control actions are taken. Consultation with the air pollution control agencies of the affected jurisdictions will be accomplished to help evaluate local situations.

POLLUTANT	AVERAGE	ug/m^3	ppm
SO_2	24 hour	800	.3
Particulates	24 hour	375	(3.0 COH)
Product of SO_2 x Particulates	24 hour	65,000	(.2 COH-ppm product)
CO	8 hour	17,000	15.0
Oxidants	1 hour	400	.2
NO_2	1 hour	1,130	.6
	24 hour	282	.15

(4) Warning Stage

A Warning Stage shall be declared by the Board when anyone of the following pollutant levels is reached at any monitoring site concurrent with:

(i) Consultation with the national, local or staff meteorologist which indicates that an atmospheric stagnation exists and/or

(ii) A determination by the Board that the pollutant level is representative of air quality in an Air Quality Control Region and the concentrations of pollutants can be expected to remain at the following indicated levels for 12 or more hours or increase, or in the case of oxidants, the situation is likely to recur within the next 24 hours unless control actions are taken. Consultation with the air pollution control agencies of the affected jurisdictions will be accomplished to help evaluate local situations.

POLLUTANT	AVERAGE	ug/m^3	ppm
SO_2	24 hour	1,600	.6
Particulates	24 hour	625	(5.0 COH)
Product of SO_2 x Particulates	24 hour	261,000	(.8 COH-ppm product)
CO	8 hour	34,000	(30.0)
Oxidants	1 hour	800	.4
NO_2	1 hour	2,260	1.2
	24 hour	565	.30

(5) Emergency Stage

An Emergency Stage shall be declared by the Governor of the Commonwealth of Virginia when one of the following pollutant levels is reached at any monitoring site concurrent with:

(i) Consultation with the national, local or staff meteorologist which indicates that an atmospheric stagnation exists and/or

(ii) A determination by the Board that the pollutant level is representative of air quality in an Air Quality Control Region and the concentrations of pollutants can be expected to remain at the following indicated levels for 12 or more hours or increase, or in the case of oxidants, the situation is likely to recur within the next 24 hours unless control actions are taken. Consultation with the air pollution control agencies of the affected jurisdictions will be accomplished to help evaluate local situations.

POLLUTANT	AVERAGE	ug/m^3	ppm
SO_2	24 hour	2,100	.8
Particulates	24 hour	875	(7.0 COH)
Product of SO_2 x Particulates	24 hour	393,000	(1.2 COH-ppm product)
CO	8 hour	46,000	40.0
Oxidants	1 hour	1,000	.5
NO_2	1 hour	3,000	1.6
NO_2	24 hour	750	.4

(6) Termination

Termination of any existent stage of the Air Pollution Episode shall be declared by the Governor of the Commonwealth of Virginia or the Board based on

(i) Consultation with the national, local or staff meteorologist which indicates that the atmospheric conditions justify termination and/or

(ii) Appropriate reduction in pollutant levels. As the criteria for a given stage are no longer being met, the lowest appropriate stage will be assumed.

(c) When the Board determines that a specified criteria level is being approached and may be reached at one or more monitoring sites soley because of emissions from a limited number of sources, it may act to prevent the attainment of the episode level by notifying such source(s) that the preplanned abatement strategies of Table 7.02 A, B or C or the standby plans are required, insofar as it applies to such source(s), and shall be put into effect until a satisfactory reduction in the ambient pollution concentration has been achieved.

(d) The Health Advisory, Alert, Warning and Emergency Stages may be activated on the basis of deteriorating air quality alone; i.e., an air stagnation advisory need not be in effect, subject to the determination specified in paragraphs (b)(2), (b)(3)(ii), (b)(4)(ii) and (b)(5)(ii) of this section.

7.03 STANDBY EMISSION REDUCTION PLANS

(a) Any owner of a stationary source emitting criteria pollutants as set forth in Table 7.02A, B, or C shall prepare standby emission reduction plans, consistent with safe operating procedures, for reducing emissions during periods of Alert, Warning and Emergency Stages. Standby emission reduction plans shall be designed to reduce or eliminate emissions in accordance with the objectives set forth in Table 7.02A, B and C.

(b) Any owner of a source of pollutants not specifically identified under paragraph (a) of this section shall, when requested by the Board in writing, prepare standby emission reduction plans, consistent with safe operating procedures, for reducing emissions during periods of Alert, Warning and Emergency Stages. Standby emission reduction plans shall be designed to reduce or eliminate emissions in accordance with the objectives set forth in Table 7.02A, B and C.

(c) Standby emission reduction plans as required in paragraphs (a) and (b) of this section shall be in writing and show the source of emissions, the approximate amount of reduction of emissions to be achieved, the time necessary to achieve the reduction after being notified to implement the plan and a description of the manner in which the reduction will be achieved during an Alert, Warning and Emergency Stage in accordance with the objectives set forth in Table 7.02A, B and C. Such plans shall be submitted in the form specified by the Board.

(d) During an Alert, Warning or Emergency Stage, standby emission reduction plans as required by this section shall be made immediately available on the premises to any person authorized to enforce these regulations.

(e) Standby emission reduction plans as required by this section shall be submitted to the Board upon request within 30 days of the receipt of such request; such standby emission reduction plans shall be subject to review and approval by the Board. If in the opinion of the Board, such standby emission reduction plans do not carry out the objectives set forth in Table 7.02A, B and C, the Board may disapprove said standby emission reduction plans, state the reason for disapproval and recommend specific amendments to the proposed standby emission reduction plans. A revised plan shall then be resubmitted within a time period specified by the Board. If any owner fails to submit a standby emission reduction plan within the time period specified, or submits a plan which in the opinion of the Board does not carry out the objectives set forth in Table 7.02A, B and C, the Board shall promulgate such standby emission reduction plan as will meet the objectives stated in Table 7.02A, B and C. Such plan shall thereafter be the standby emission reduction plan which the owner shall put into effect upon the declaration by the Governor or the Board of an Alert, Warning or Emergency Stage.

7.04 CONTROL REQUIREMENTS

(a) After an Alert Stage has been declared by the Board, each owner of a source subject to a standby emission reduction plan under Section 7.03 and each owner of any other source designated shall, when requested to do so by the Board, take such Alert Stage actions as requested and shall put into effect the requested provisions of the preplanned abatement strategy for an Alert Stage as set forth in Table 7.02A.

(b) After a Warning Stage has been declared by the Board, each owner of a source subject to a standby emission reduction plan under Section 7.03 and each owner of any other source designated shall, when requested to do so by the Board, take such Warning Stage actions as requested and shall put into effect the requested provisions of the preplanned abatement strategy for a Warning Stage as set forth in Table 7.02B.

(c) When the Board determines that the concentration of a specified criteria pollutant has reached the Alert or Warning Stage levels at one or more monitoring sites solely because of emissions from a limited number of sources it shall notify the owner(s) of such source(s) that the preplanned abatement strategies of Table 7.02A or B or the standby emission reduction plans are required, as applicable, to be put into effect and shall remain in effect until the level of the specified criteria pollutant is within limits.

(d) When the Board determines that the level of a specific criteria pollutant or a specific type of criteria pollutant caused the declaration of an Alert or Warning Stage and that curtailment of emissions from certain sources would have no effect on that pollutant level, it may determine which standby emission reduction plans and abatement strategies shall be put into effect.

(e) After an Emergency Stage has been declared by the Governor, each owner of a source subject to a standby emission reduction plan under Section 7.03 and each owner of any other source designated shall take such Emergency Stage actions as required and shall put into effect the preplanned abatement strategy for an Emergency Stage as set forth in Table 7.02C.

7.05 LOCAL AIR POLLUTION CONTROL AGENCY PARTICIPATION

(a) Local air pollution control agencies shall develop local plans which will establish standard operating procedures and allocation of responsibilities (including public information) to be placed in effect in the event of an Air Pollution Episode. Two copies of such plans and any subsequent changes to the plans shall be furnished to the Board.

(b) The statewide Episode Control Center will be located in Richmond. Operational, communication and public information procedures for the control of Air Pollution Episodes by the State Episode Control Center will be promulgated by the Board to all local air pollution control agencies and regional offices.

PREPLANNED ABATEMENT STRATEGIES
TABLE 7.02A
ALERT STAGE

A. GENERAL

1. There shall be no open burning by any owner or other person.
2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 noon and 4:00 p.m.
3. Owners of fuel burning equipment which require boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 noon and 4:00 p.m.
4. Owners operating motor vehicles shall eliminate all unnecessary operations.

B. SOURCE CURTAILMENT

Any owner of a source listed below shall take all required control actions for this Alert Stage.

Source of Air Pollution	Control Action
1. Coal or oil-fired electric power generating facilities	a. Substantial reduction by utilization of fuels having low ash and sulfur content.
	b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

TABLE 7.02A (continued)

Source of Air Pollution	Control Action
	c. Substantial reduction by diverting electric power generation to facilities outside of Alert Area.
2. Coal and oil-fired process steam generating facilities.	a. Substantial reduction by utilization of fuels having low ash and sulfur content. b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Substantial reduction of steam load demands consistent with continuing plant operations.
3. Manufacturing industries of the following classifications: Primary Metals Industries. Petroleum Refining Operations. Chemical Industries. Mineral Processing Industries. Paper and Allied Products. Grain Industry.	a. Substantial reduction of air pollutants from manufacturing operations by curtailing, postponing or deferring production and all operations. b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gas vapors or malodorous substances. c. Maximum reduction of heat load demands for processing. d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

TABLE 7.02B
WARNING STAGE

A. GENERAL

1. There shall be no open burning by any owner or other person.
2. The use of incinerators for the disposal of any form of solid waste or liquid waste is prohibited.
3. Owners of fuel burning equipment which require boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 noon and 4:00 p.m.

4. Owners operating motor vehicles shall reduce operations by the use of car pools and increased use of public transportation and elimination of unnecessary operation.

B. SOURCE CURTAILMENT

Any owner of a source listed below shall take all required control actions for this Warning Stage.

Source of Air Pollution	Control Action
1. Coal or oil-fired electric power generating facilities.	a. Maximum reduction by utilization of fuels having lowest ash and sulfur content.
	b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
	c. Maximum reduction by diverting electric power generation to facilities outside of Warning Area.
2. Coal and oil-fired process steam generating facilities.	a. Maximim reduction by utilization of fuels having the lowest available ash and sulfur content.
	b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
	c. Making ready for use a plan of action to be taken if an emergency develops.
3. Manufacturing industries which require considerable lead time for shutdown including the following classification: Petroleum Refining. Chemical Industries. Primary Metals Industries. Glass Industries. Paper and Allied Products.	a. Maximum reduction of air pollutants from manufacturing operations by, if necessary, assuming reasonable economic hardships by postponing production and allied operation.
	b. Maximum reduction by deferring trade waste disposal operations, which emit solid particles, gases, vapors, or malodorous substances.
	c. Maximum reduction of heat load demands for processing.

TABLE 7.02B (continued)

	d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.
4. Manufacturing industries require relatively short lead times for shutdown including the following classifications:	a. Elimination of air pollutants from manufacturing operations by causing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.
Primary Metals Industries. Chemical Industries. Mineral Processing Industries. Grain Industry.	b. Elimination of air pollutants from trade waste disposal processes which emit solid particles, gases, vapors or malodorous substances.
	c. Maximum reduction of heat load demands for processing.
	d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

TABLE 7.02C
EMERGENCY STAGE

A. GENERAL

1. There shall be no open burning by any owner or other person.

2. The use of incinerators for the disposal of any form of solid or liquid waste is prohibited.

3. All places of employment described below shall immediately cease operations.

   a. Mining and quarrying of non-metallic minerals.

   b. All construction work except that which must proceed to avoid emergent physical harm.

   c. All manufacturing establishments except those required to have in force an air pollution emergency plan.

   d. All wholesale trade establishments; i.e., places of business primarily engaged in selling merchandise to retailers, or industrial, commercial, institutional or professional users, or to other wholesalers, or acting as agents in buying merchandise for or selling merchandise to such persons or companies, except those engaged in the distribution of drugs, surgical supplies and food.

e. All offices of local, county and State government including authorities, joint meetings and other public bodies excepting such agencies which are determined by the chief administrative officer of local, county or State government authorities, joint meetings and other public bodies to be vital for public safety and welfare and the enforcement of the provisions of this part.

f. All retail trade establishments except pharmacies, surgical supply distributors, and stores primarily engaged in the sale of food.

g. Banks, credit agencies other than banks, securities and commodities brokers, dealers, exchanges and services; offices of insurance carriers, agents and brokers, real estate offices.

h. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments; photographic studios; beauty shops, barber shops, shoe repair shops.

i. Advertising offices; consumer credit reporting, adjustment and collection agencies; duplicating, addressing, blueprinting; photocopying, mailing, mailing list and stenographic services; equipment rental services, commercial testing laboratories.

j. Automobile repair, automobile services, garages.

k. Establishments rendering amusement and recreational services including motion picture theaters.

l. Elementary and secondary schools, colleges, universities, professional schools, junior colleges, vocational schools and public and private libraries.

4. All commercial and manufacturing establishment not included in this order shall institute such actions as will result in maximum reduction of air pollutants from their operation by ceasing, curtailing or postponing operations which emit air pollutants to the extent possible without causing injury to persons or damage to equipment.

5. The use of motor vehicles is prohibited except in emergencies with the approval of local or State police.

B. SOURCE CURTAILMENT

Any owner of a source listed below shall take all required control actions for this Emergency Stage.

Source of Air Pollution	Control Action
1. Coal or oil-fired electric power generating facilities.	a. Maximum reduction by utilization of fuels having lowest ash and sulfur content.

Source of Air Pollution	Control Action
	b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.
	c. Maximum reduction by diverting electric power generation to facilities outside of Emergency Area.
2. Coal and oil-fired process steam generating facilities.	a. Maximum reduction by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage.
	b. Maximum utilization of mid-day (12:00 to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
	c. Taking the action called for in the emergency plan.
3. Manufacturing industries of the following classifications: Primary Metals Industries. Petroleum Refining. Chemical Industries. Mineral Processing Industries. Grain Industry. Paper and Allied Products.	a. Elimination of air pollutants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.
	b. Elimination of air pollutants from trade waste disposal processes which emit solid particles, gases, vapors or malodorous substances.
	c. Maximum reduction of heat load demands for processing.
	d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

APPENDIX A
ABBREVIATIONS

A - ampere

act - actual

AQCR - Air Quality Control Region

AQMA - Air Quality Maintenance Area

ASTM - American Society for Testing and Materials

avg. - average

Be - Beryllium

Btu - British thermal unit

°C - degree Celsius (centigrade)

cal - calorie

cc - cubic centimeter

Cds - cadmium sulfide

cfm - cubic feet per minute

CFR - Code of Federal Regulations (40 CFR Part 35 means Part 35 of Title 40 of the Code of Federal Regulations; 40 CFR 35.20 means Section Section 35.20 of Part 35 of Title 40 of the Code of Federal Regulations)

CO - carbon monoxide

CO_2 - carbon dioxide

COH - Coefficient of Haze (unit of measure for the soiling index)

cu ft - cubic feet

d - day

dcf - dry cubic feet

dcm - dry cubic meter

dscf - dry cubic feet at standard conditions dscm - dry cubic meter at standard conditions

EPA - Environmental Protection Agency

eq - equivalents

F - degrees Fahrenheit

FR - Federal Register (36 FR 1492, May 3, 1971 means page 1492, dated May 3, 1971, of Volume 36 of the Federal Register - the page indicated is the first page of the referenced material)

ft - feet

ft^2 - square feet

ft^3 - cubic feet

g - gram

gal - gallon

g-eq - gram equivalents

gr - grain

HCl - hydrochloric acid

Hg - mercury

hp - horse power

hr - hour

H_2O - water

H_2S - hydrogen sulfide

H_2SO_4 - sulfuric acid

Hz - hertz

I.D. - inside diameter

in. - inch

inHg - inches of mercury

inH_2O - inches of water

J - joule

°K - degree Kelvin

k - 1,000

kg - kilogram

l - liter

lb - pound

lpm - liter per minute

M - molar

m - meter

m^3 - cubic meter

meq - milliequivalent

Mg - megagram = 10^6 gram

mg - milligram = 10^{-3} gram

min - min

ml - milliliter

mm - millimeter = 10^{-3} meter

mol - mole

mol. wt. - molecular weight

mV - millivolt

N - normal

N - newton

N_2 - nitrogen

ng - nanogram = 10^{-9} gram

nm - nanometer = 10^{-9} meter

NO - nitric oxide

NO_2 - nitrogen dioxide

NO_x - nitrogen oxides

O_2 - oxygen

O.D. - outside diameter

oz - ounce

Pa - pascal

ppb - parts per billion

ppm - parts per million

psia - pounds per square inch absolute

psig - pounds per square inch gauge

°R - degree Rankine

s - second

scf - cubic feet at standard conditions

scfh - cubic feet per hour at standard conditions

scm - cubic meter at standard conditions

sec - second

SMSA - Standard Metropolitan Statistical Area

SO_2 - sulfur dioxide

SO_3 - sulfur trioxide

SO_x - sulfur oxides

sq ft- square feet

std - at standard conditions or standard

ug - microgram = 10^{-6} gram

ul - microliter = 10^{-6} liter

V - volt

USC - United States Code

v/v - volume per volume

W - watt

w.g.- water gage

yd^2 - square yard

yr - year

% - percent

Ω - ohm

APPENDIX B

AIR QUALITY CONTROL REGIONS

Region 1 - Eastern Tennessee-Southwestern Virginia Interstate Air Quality Control Region (Virginia)

The Eastern Tennessee-Southwestern Virginia Interstate Air Quality Control Region (Virginia portion) consists of the territorial area encompassed by the boundaries of the following jurisdictions or described area (including the territorial area of all localities geographically located within the outermost boundaries of the area so delimited):

COUNTIES

- Bland
- Buchanan
- Carroll
- Dickenson
- Grayson
- Lee
- Russell
- Scott
- Smyth
- Tazewell
- Washington
- Wise
- Wythe

CITIES

- Bristol
- Galax
- Norton

Region 2 - Valley of Virginia Intrastate Air Quality Control Region

The valley of Virginia Intrastate Air Quality Control Region consists of the territorial area encompassed by the boundaries of the following jurisdictions or described area (including the territorial area of all localities geographically located within the outermost boundaries of the area so delimited):

COUNTIES

- Alleghany
- Augusta
- Bath
- Botetourt
- Clarke
- Craig
- Floyd
- Frederick
- Giles
- Highland
- Montgomery
- Page
- Pulaski
- Roanoke
- Rockbridge
- Rockingham
- Shenandoah
- Warren

CITIES

- Buena Vista
- Clifton Forge
- Covington
- Harrisonburg
- Lexington
- Radford
- Roanoke
- Salem
- Staunton
- Waynesboro
- Winchester

Region 3 - Central Virginia Intrastate Air Quality Control Region

The Central Virginia Intrastate Air Quality Control Region consists of the territorial area encompassed by the boundaries of the following jurisdictions or described area (including the territorial area of all localities geographically located within the outermost boundaries of the area so delimited):

COUNTIES

- Amelia
- Amherst
- Appomattox
- Bedford
- Brunswick
- Buckingham
- Campbell
- Charlotte
- Cumberland
- Franklin
- Halifax
- Henry
- Lunenburg
- Mecklenburg
- Nottoway
- Patrick
- Pittsylvania
- Prince Edward

CITIES

- Bedford
- Danville
- Lynchburg
- Martinsville
- South Boston

Region 4 - Northeastern Virginia Intrastate Air Quality Control Region

The Northeastern Virginia Intrastate Air Quality Control Region consists of the territorial area encompassed by the boundaries of the following jurisdictions or described area (including the territorial area of all localities geographically located within the outermost boundaries of the area so delimited):

COUNTIES

- Accomack
- Albemarle
- Caroline
- Culpeper
- Essex
- Fauquier
- Fluvanna
- Gloucester
- Greene
- King and Queen
- King George
- King William
- Lancaster
- Louisa
- Madison
- Mathews
- Middlesex
- Nelson
- Northampton
- Northumberland
- Orange
- Rappahannock
- Richmond
- Spotsylvania
- Stafford
- Westmoreland

CITIES

Charlottesville
Fredericksburg

Region 5 - State Capital Intrastate Air Quality Control Region

The State Capital Intrastate Air Quality Control Region consists of the territorial area encompassed by the boundaries of the following jurisdictions or described area (including the territorial area of all localities geographically located within the outermost boundaries of the area so delimited):

COUNTIES

Charles City
Chesterfield
Dinwiddie
Goochland
Greensville
Hanover
Henrico
New Kent
Powhatan
Prince George
Surry
Sussex

move it into line

CITIES

Colonial Heights
Emporia
Hopewell
Petersburg
Richmond

Region 6 - Hampton Roads Intrastate Air Quality Control Region

The Hampton Roads Intrastate Air Quality Control Region consists of the territorial area encompassed by the boundaries of the following jurisdictions or described area (including the territorial area of all localities geographically located within the outermost boundaries of the area so delimited):

COUNTIES

Isle of Wight
James City
Southampton
York

CITIES

Cheasapeake
Franklin
Hampton
Newport News
Norfolk
Poquoson
Portsmouth
Suffolk
Virginia Beach
Williamsburg

Move Suffolk up please

Region 7 - National Capital Interstate Air Quality Control Region (Virginia)

The National Capital Interstate Air Quality Control Region (Virginia portion) consists of the territorial area encompassed by the boundaries of the following jurisdictions (including the territorial area of all localities geographically located within the outermost boundaries of the area so delimited):

COUNTIES

Arlington	Loudoun
Fairfax	Prince William

CITIES

Alexandria	Manassas
Fairfax	Manassas Park
Falls Church	

NOTE: For administrative purposes certain counties and the localities within shall be in regions other than those listed above. This administrative delineation in no way alters the applicability of the regulations.

Administrative alterations shall be as follows:

Region 6 - Ascomack County and Northampton County

Region 7 - Clarke County, Frederick County, Page County, Shenandoah County, Warren County, and City of Winchester

APPENDIX C

MAJOR POLLUTANT SOURCES

CHEMICAL PROCESS INDUSTRIES

Adipic acid
Ammonia
Ammonium nitrate
Carbon black
Charcoal
Chlorine
Detergent and soap
Explosives (TNT and nitrocellulose)
Hydrofluoric acid
Nitric acid
Paint and varnish manufacturing
Phosphoric acid
Phthalic anhydride
Plastics manufacturing
Printing ink manufacturing
Sodium carbonate
Sulfuric acid
Synthetic fibers
Synthetic rubber
Terephthalic acid

FOOD AND AGRICULTURAL INDUSTRIES

Alfalfa dehydrating
Ammonium nitrate
Coffee roasting
Cotton ginning
Feed and grain
Fermentation processes
Fertilizers
Fish meal processing
Meat smoke houses
Starch manufacturing
Sugar cane processing

METALLURGICAL INDUSTRIES

Primary metals industries:
  Aluminum ore reduction
  Copper smelters
  Ferroalloy production
  Iron and steel mills
  Lead smelters

  Metallurgical coke manufacturing
  Zinc

Secondary metals industries;
  Aluminum operations
  Brass and bronze melting
  Ferroalloys
  Gray iron foundries
  Lead melting
  Magnesium melting
  Steel foundries
  Zinc processes

MINERAL PRODUCTS INDUSTRIES

Asphalt roofing
Asphaltic concrete batching
Bricks and related clay refractories
Calcium carbide
a → Castable refractories ←
Cement
Ceramic and clay processes
Clay and fly ash sintering
Coal cleaning
Concrete batching
Fiberglass manufacturing
Frit manufacturing
Glass manufacturing
Gypsum manufacturing
Lime manufacturing
Mineral wool manufacturing
Paperpulp manufacturing
Perlite manufacturing
Phosphate rock preparation
Rock, gravel and sand quarrying
  and processing

PETROLEUM REFINING AND PETROCHEMICAL OPERATIONS

WOOD PROCESSING

PETROLEUM STORAGE (Storage tanks bulk terminals)

MISCELLANEOUS

Fossil fuel steam electric power plants
Municipal or equivalent incinerators
Open burning dumps

APPENDIX D

FOREST MANAGEMENT AND AGRICULTURE PRACTICES

I. The following forest management practices by open burning are hereby approved:

  a. To reduce forest fuels and minimize the effect of wild fires.

  b. To control undesirable growth of hardwoods.

  c. To control disease in pine seedlings.

  d. To prepare forest land for planting or seeding. For these practices the following conditions must be adhered to:

    1. Stumps are not to be deliberately uprooted.

    2. The material is not to be deliberately piled or bunched together.

  e. To create a favorable food and cover habitat for certain species of wildlife.

  f. To remove dead vegetation for the maintenance of railroad, highway and public utility right-of-way.

II. The following agriculture practices by open burning are hereby approved when no other means of disposal is reasonably available:

  a. To destroy undesirable vegetation.

  b. To clear orchards and orchard prunings.

  c. To destroy fertilizer and chemical containers.

  d. To denature seed and grain which may no longer be suitable for agriculture purposes.

  e. To prevent loss from frost or freeze damage.

  f. To create a favorable food and cover habitat for certain species of wildlife.

APPENDIX E

GUIDELINES FOR OPERATION OF COAL REFUSE DISPOSAL AREAS

I. Site Selection

a. Strip pits are considered to be suitable sites for the disposal of coal refuse. The overburden (i.e., rock, clay, earth, etc. which must be removed to expose the coal seam) at strip pits is a ready source of seal for the refuse pile. Such piles when sealed with overburden are not likely to ignite because the spoil cover will prevent air from circulating within the pile and will also provide the pile with a blanket of noncombustible material.

b. Hillsides are not desirable sites for the disposal of coal refuse. If a hillside is to be used as a disposal site for coal refuse, the site should be prepared so as to minimize the possibility of shifting of the pile and ignition of the coal refuse.

c. Sites should be selected to minimize the possibility of stream pollution.

II. Site Preparation

a. All vegetation should be cleaned from a strip 10 feet wide adjacent to and surrounding the coal refuse pile. This will prevent accidental ignition of the coal refuse from brush fires.

b. In case of strip pit sites, all coal outcrops should be protected by covering with a layer of clay or overburden.

c. If an old coal refuse pile is to be reactivated and made into a disposal area, a barrier of clay or other inert material should be placed between the old pile and the new coal refuse.

d. If a pile is to be located on a hillside, disposal procedures to prevent the slippage of coal refuse must be employed. One procedure to be considered is the construction of a properly designed trench at the base of the pile.

e. If there is a possibility of stream pollution from drainage, run-off water should be diverted around the pile by trenching.

III. Pile Construction

The following guidelines are to apply unless it can be demonstrated, to the satisfaction of the Board, that the proposed techniques in the application will achieve the same objectives.

a. Depositing of coal refuse on the coal refuse pile in layers is desirable. Each layer should be compacted with coal refuse hauling trucks or other suitable equipment in order to reduce voids and minimize air circulation within the pile.

APPENDIX E (Continued)

b. Coal refuse should be deposited in layers not exceeding 2 feet in depth when practical. If the coal refuse is highly "reactive" each layer should be covered with a 6-inch layer of clay or other inert material.

c. The side of the pile, when possible, should have a slope that will allow heavy equipment access to the pile, if needed. It will also permit better compaction of the sides and reduce air penetration into the pile.

d. The slopes (sides) of the pile should be sealed with clay or other sealing materials so as to prevent the flow of air within the pile. The seal should be applied as the pile is constructed. The seal should be planted with rapid growing vegetation to prevent erosion.

e. If mine rock cannot be adequately compacted when mixed or if it may cause size segregation when mixed with coal refuse, it should be disposed of in separate rock piles.

f. Drainage ditches for run-off water should be provided to prevent erosion of the face of the pile.

g. A pile should not be constructed by dumping coal refuse down the side of a hill, nor should a pile be extended by dumping down its side. A pile constructed in this manner cannot be compacted during construction. Also, this procedure will create many voids because of size segregation. If the coal refuse is highly reactive, the air circulation through the voids is likely to cause the coal refuse to ignite.

h. Where practical hillside piles should be formed by terracing.

i. If an aerial tramway, truck or belt conveyor is to be used to dispose of reactive coal refuse, bulldozers or other suitable equipment should be used to spread and compact the coal refuse.

IV Trouble-Shooting

a. The coal refuse piles should be patrolled frequently to insure that proper disposal procedures are being followed and detect "hot spots".

b. As soon as a hot spot is detected, it should be either dug out and spread to cool or intensively compacted. This will minimize the chances of ignition.

c. If the coal refuse has ignited, the burning portion of the pile should be isolated if possible from the rest of the pile by cutting a trench to the surface of the earth. The face of the non-burning portion should be covered

Add ←
(underlined in red)

with inert sealing material. The fire in the burning section of the pile should be promptly brought under control by one of the following, or any other effective methods:

1. Use water in conjunction with a shovel or bulldozer to dig out, level and extinguish the burning coal refuse.
2. Level the top, grade the slopes, compact intensively and seal the entire surface of the pile.
3. Seal the pile with a fine cleaning plant refuse (silt) and/or other suitable material.
4. Grout with slurry of water and limestone or cement.

APPENDIX F

DELEGATION OF AUTHORITY

I. The delegation of authority specified within this appendix is subject to the following restrictions:

   a. The Board by its own motion has the right to exercise authority in any of the following delegated powers should it choose to do so.

   b. Any person has the right to appeal a decision of the Executive Director or a Regional Director to the Board or the Executive Director as appropriate. The appeal must be filed within 30 days after the decision is rendered and should contain reasons or grounds for appeal.

   c. The notice of appeal by itself does not constitute a stay of decision. A stay of decision must be sought through appropriate legal channels.

II. The following administrative and decision making powers are conferred upon the Executive Director by the Board.

   a. Maintain the offices and keep the records and files of the Board.

   b. Provide for all of the necessary administrative support required by the Board in conducting regular or special meetings, holding public hearings, issuing orders, granting variances, or performing any other duties prescribed by the Virginia Air Pollution Control Law or these regulations.

   c. Provide for all of the necessary administrative support required by the Technical Advisory Committee of the Board in carrying out its advisory duties.

   d. Prepare and submit reports required by State and Federal authorities.

   e. Prepare and submit budget requests or applications for grants, as directed by the Board.

   f. Supervise and direct the activities of other staff personnel, and provide for a continuing training program in the field of air pollution for employees of the Board.

   g. Conduct a public relations program to make the people of the Commonwealth of Virginia aware of the problems of air pollution within the State and cognizant of the activities of the Board to solve the problems.

h. Represent the Board at conferences, seminars or other similar activities, either intrastate or interstate, in matters pertaining to air pollution.

i. Cooperate with other agencies of local, State and Federal Governments in the control of air pollution, as authorized under the code of Virginia (1950), as amended.

j. Administer the program established by the Board for the effective control of air pollution throughout the Commonwealth of Virginia. In the performance of this duty, the Executive Director or his designated representative shall have the authority to:

   1. Investigate complaints of violations of these regulations.

   2. Establish and maintain a state-wide air sampling network and make observations or take measurements of air pollution in any area of the State for the purpose of determining the air quality in the state as well as evaluating the effectiveness of air pollution controls.

   3. Take action necessary to abate or control air pollution in accordance with these regulations.

   4. Approve or disapprove control programs in accordance with these regulations.

   5. Provide assistance to localities in regard to local air pollution control, particularly in regard to development of air pollution ordinances and programs.

   6. Act on applications for Federal grants made by localities.

   7. Approve or disapprove applications for permits in accordance with these regulations.

   8. Certify facilities for the control of air pollution with respect to applications for tax relief made by owners in accordance with the applicable provisions of State or Federal laws.

   9. Establish and maintain a source registration system and emission inventory of air pollutants discharged into the atmosphere as provided for in these regulations.

10. Conduct hearings and proceedings provided for in the Virginia Air Pollution Control Law and the Administrative Process Act.

11. Determine, after thorough study of available data and information available from other States and Federal agencies, emission standards and make recommendations to the Board concerning the adoption of emission standards.

12. Approve or disapprove open burning permits in accordance with these regulations. Further delegation by the Executive Director to the Regional Directors is authorized.

13. Approve consent agreements and consent orders. In cases where compliance is expected to result within 90 days or less, further delegation by the Executive Director of approval of consent agreements to the Regional Directors is authorized.

k. Perform all such additional duties as may be required to carry out the policies and directives of the Board.

l. Whenever the Executive Director is away for three or more days, the Assistant Executive Director (Enforcement) may sign official correspondence as "Acting Executive Director" and have the same delegation of authority as outlined above.

APPENDIX G

STANDARD METROPOLITAN STATISTICAL AREAS

Standard Metropolitan Statistical Areas are geographically defined as follows:

Title	Geographical Area
Bristol SMSA	Bristol City
	Scott County
	Washington County
Lynchburg SMSA	Lynchburg City
	Amherst County
	Appomattox County
	Campbell County
Newport News - Hampton SMSA	Hampton City
	Newport News City
	Poquoson City
	Williamsburg City
	Gloucester County
	James City County
	York County
Norfolk - Virginia Beach - Portsmouth SMSA	Chesapeake City
	Norfolk City
	Portsmouth City
	Suffolk City
	Virginia Beach City
Petersburg - Colonial Heights - Hopewell SMSA	Colonial Heights City
	Hopewell City
	Petersburg City
	Prince George County
	Dinwiddie County
Richmond SMSA	Richmond City
	Charles City County
	Chesterfield County
	Goochland County
	Hanover County
	Henrico County
	Powhatan County
Roanoke SMSA	Roanoke City
	Salem City
	Botetourt County
	Craig County
	Roanoke County

APPENDIX G (Continued)

National Capital SMSA	Alexandria City
	Fairfax City
	Falls Church City
	Manassas City
	Manassas Park City
	Arlington County
	Fairfax County
	Loudoun County
	Prince William County

APPENDIX H

AIR QUALITY MAINTENANCE AREAS

Air Quality Maintenance Areas are geographically defined as follows:

Title	Geographical Area
Lynchburg AQMA	Lynchburg City
	Amherst County
	Appomattox County
	Campbell County
Newport News - Hampton AQMA	Hampton City
	Newport News City
	Poquoson City
	Williamsburg City
	Gloucester County
	James City County
	York County
Norfolk - Portsmouth - Virginia Beach AQMA	Chesapeake City
	Norfolk City
	Portsmouth City
	Suffolk City
	Virginia Beach City
Petersburg - Colonial Heights - Hopewell AQMA	Colonial Heights City
	Hopewell City
	Petersburg City
	Prince George County
	Dinwiddie County
Richmond AQMA	Richmond City
	Charles City County
	Chesterfield County
	Goochland County
	Hanover County
	Henrico County
	Powhatan County
Roanoke AQMA	Roanoke City
	Salem City
	Botetourt County
	Craig County
	Roanoke County
National Capital AQMA	Alexandria City
	Fairfax City
	Falls Church City
	Manassas City
	Manassas Park City
	Arlington County
	Fairfax County
	Loudoun County
	Prince William County

APPENDIX I

ENVIRONMENTAL PROTECTION AGENCY REGULATIONS - REFERENCE DOCUMENTS

The complete text of EPA regulations incorporated into these regulations is contained in the following Federal Register items (available in most public libraries):

40 CFR Part 50

50/E-41 FR 52686, December 1, 1976

40 CFR Part 53

53/D-41 FR 52692, December 1, 1976

40 CFR Part 61

61/D-41 FR 46560, October 21, 1976

61/E-41 FR 53017, December 3, 1976

40 CFR Part 60

60/U-41 FR 51397, November 22, 1976

60/V-41 FR 52299, November 29, 1976

APPENDIX K

NONATTAINMENT AREAS

Nonattainment Areas are geographically defined below for the following criteria pollutants:

a. Particulate Matter

None

b. Sulfur Dioxide

None

c. Carbon Monoxide

1. AQCR 1 thru 6	None
2. AQCR 7	Alexandria City Arlington County Fairfax County

d. Ozone

1. AQCR 1	*Smyth County
2. AQCR 2	Roanoke City Salem City Roanoke County
3. AQCR 3	None
4. AQCR 4	*Stafford County
5. AQCR 5	Richmond City Chesterfield County Henrico County
6. AQCR 6	Chesapeake City Hampton City Newport News City Norfolk City Portsmouth City *Suffolk City Virginia Beach City

7. AQCR 7

Alexandria City
Fairfax City
Falls Church City
Manassas City
Manassas Park City
Arlington County
Fairfax County
Loudoun County
Prince William County

e. Hydrocarbons

None

f. Nitrogen Oxides

None

* - designates localities as rural nonattainment areas; the remaining localities are urban nonattainment areas.

APPENDIX M

CONTROL TECHNOLOGY GUIDELINES
FOR
VOLATILE ORGANIC COMPOUND EMISSIONS

I. General

a. Solvent Metal Cleaning

1. Conveyorized Degreasing

i. Control Requirements

a The degreaser (if the air/vapor interface is larger than 20 ft2) should be equipped with one of the following vapor control methods:

1 Refrigerated chiller (a secondary set of condensing coils operating with a coolant of less than 40 degrees Fahrenheit).

2 Carbon adsorption system, with ventilation 50 cfm/ft2 or greater of conveyor opening area (when down-time covers are open), and exhausting less than 25 ppm of solvent by volume averaged over a complete adsorption cycle.

3 Any control method of equal or greater efficiency to the methods in paragraphs a.1.i.a1 and 2 of this section, provided such method is approved by the Board.

b The degreaser should be equipped with either a drying tunnel, or other means such as rotating (tumbling) basket, sufficient to prevent cleaned parts from carrying our solvent liquid or vapor,

c The degreaser should be equipped with all of the following control devices:

1 A device to prevent heat input unless there is adequate coolant.

2 The spray shall be equipped with a device that will prevent spraying unless the degreaser is operating normally.

3 A device to shut off the heat if the vapor level rises above a predetermined level.

d Entrances and exits should silhouette work loads so that the average clearance (between the largest parts and the edge of the degreaser opening) is either 4 in. or 10 percent of the width of the opening, whichever is less.

e Covers should be provided for closing off the entrance and exit during shutdown, heat-up and cool-down.

ii. Operating Requirements

a Exhausting ventilation should not exceed 65 cfm/ft2 of degreaser open area, unless necessary to meet OSHA requirements. Fans shall not be used near the degreaser opening.

b Carry-out vapor losses should be minimized by racking parts to allow full drainage and maintaining vertical conveyor speed at less than 11 ft/min.

c Waste solvent should not be disposed of or transferred to another party such that greater than 20 percent of the waste (by weight) can evaporate into the atmosphere. Waste solvent should only be stored in closed containers.

d Solvent leaks should be repaired immediately or the degreaser should be shutdown.

e Water should not be visibly detectable in the solvent exiting the water separator.

f Down-time cover should be placed over entrances and exits of conveyorized degreasers immediately after the conveyor and exhaust are shutdown and removed just before they are started up.

2. Open Top Vapor Degreasing

i. Control Requirements

a Covers should be provided that can be opened and closed easily without disturbing the vapor zone.

b The degreaser should be equipped with all of the following control devices:

1 A device to prevent heat input unless there is adequate coolant.

2 The spray should be equipped with a method that will prevent spraying unless the degreaser is operating normally.

c The degreaser (if the open area is larger than 10 ft2) should be equipped with one of the following vapor control methods:

1 Freeboard ratio equal to or greater than 0.75, and the cover should be powered.

2 Refrigerated chiller (a secondary set of condensing coils operating with a coolant of less than 40 degrees Fahrenheit).

3 Enclosed design (cover or door opens only when the dry part is actually entering or exiting the degreaser).

4 Carbon adsorption system, with ventilation of 50 cfm/ft2 or greater of air/vapor area (when cover is open), and exhausting less than 25 ppm solvent by volume averaged over one complete adsorption cycle.

5 Any control method of equal or greater efficiency to the methods in paragraphs a.2.i.c1 thru 4 of this section, provided such method is approved by the Board.

d A permanent label, summarizing operating procedures in paragraphs a.2.ii.a thru f of this section, should be placed in a conspicuous location on or near the degreaser.

ii. Operating Requirements

a The cover should be kept closed at all times except when processing work loads through the degreaser.

b Carry-out vapor losses should be minimized by:

1 Racking parts to allow full drainage;

2 Moving parts in and out of the degreaser at less than 11 ft/min;

3 Degreasing the work load in the vapor zone at least 30 seconds or until condensation ceases;

4 Tipping out any pools of solvent on the cleaned parts before removal; and

5 Allowing parts to dry within the degreaser for at least 15 seconds or until visually dry.

c Porous or absorbent materials, such as cloth, leather, wood or rope should not be degreased.

d Work loads should not occupy more than half of the degreaser's open top area.

e The vapor level should not drop more than 4 in. when the work load enters the vapor ozone. However, for certain specific solvent vapor degreasing operations where of necessity very large masses are required to be degreased at one time, such as large castings and fabricated assemblies, the manufacturers design should accommodate a drop of the vapor air interface of more than four inches. This introduction of such large masses of necessity causes significant vapor-air interface drop and so the problem must be resolved by engineering of the degreaser in these cases rather than by limiting the amount of air-vapor interface drop.

f Spraying above the vapor level should not be done.

g Solvent leaks should be repaired immediately or the degreaser shutdown.

h Waste solvent should not be disposed of or transferred to another party such that greater than 20 percent of the waste (by weight) can evaporate into the atmosphere. Waste solvent should be stored only in closed containers.

i Exhaust ventilation should not exceed 65 cfm/ft2 of degreaser open area, unless necessary to meet OSHA requirements. Fans should not be used near the degreaser opening.

j Water should not be visually detectable in solvent exiting the water separator.

3. Cold Cleaning

i. Control Requirements

a Covers should be provided and if solvent volatility is greater than 0.3 psi measured at 100 degrees Fahrenheit, solvent is agitated, or solvent is heated, then the covers should be designed so that they can be easily operated with one hand. (Covers for larger degreasers may require mechanical assistance, by spring loading, counterweighting or powered systems).

b Drainage facilities should be provided and if solvent volatility is greater than about 0.6 psi measured at 100 degrees Fahrenheit, then the drainage facilities should be internal, so that parts are enclosed under the cover while draining. The draining facilities may be external for applications where an internal type cannot fit into the cleaning system.

c A permanent label, summarizing the operating procedures in paragraphs a.3.ii.a thru c of this section, should be placed in a conspicuous location on or near the degreaser.

d If used, the solvent spray should be a solid, fluid stream (not a fine, atomized or shower type spray) and at a pressure which does not cause excessive splashing.

e If solvent volatility is greater than 0.6 psi measured at 100 degrees F, or if solvent is heated above 120 degrees F, then the degreaser (if the open area is greater than 20 ft2) should be equipped with one of the following vapor control methods:

  1 Freeboard ratio that is equal to or greater than 0.7.

  2 Water cover (solvent should be insoluble in and heavier than water).

  3 Refregerated chiller (a secondary set of condensing coils operating with a coolant of less than 40 degrees F).

  4 Carbon adsorption system, with ventilation 50 cfm/ft2 or greater of air/vapor area (when down-time covers are open), and exhausting less than 25 ppm of solvent by volume averaged over a complete adsorption cycle.

5 Any control method of equal or greater efficiency to the methods in paragraphs a.3.i.e1 thru 4 of this section, provided such method is approved by the Board.

ii. Operating Requirements

a Waste solvent should not be disposed of or transferred to another party, such that greater than 20 percent of the waste (by weight) can evaporate into the atmosphere. Store waste solvent only in closed containers.

b The degreaser cover should be closed whenever not handling parts in the cleaner.

c Cleaned parts should drain for at least 15 seconds or until dripping ceases.

4. Disposal of waste solvent from solvent metal cleaning operations should be by one of the following methods:

i. Reclamation (either by outside services or in-house).

ii. Incineration.

iii. Chemical landfills approved by the Board.

b. Filling of Storage Vessels

The vessel should be a pressure tank maintaining working pressure sufficient at all times to prevent vapor loss to the atmosphere, or be designed and equipped with one or the following vapor control systems:

1. Filling of the vessel through the use of a submerged fill pipe.

2. Any control system of equal or greater efficiency to the system in paragraph b.1. of this section, provided such system is approved by the Board.

c. Volatile Organic Compound Storage - Fixed Roof Tanks

1. The tank should be a pressure tank maintaining working pressure sufficient at all times to prevent vapor loss to the atmosphere, or be designed and equipped with one of the following vapor control systems:

i. An internal floating roof resting on the surface of the liquid contents and equipped with a closure seal, or seals, to close the space between the roof edge and tank shell. All tank gauging and sampling devices should be vapor tight except when gauging or sampling is taken place.

ii. Any control system of equal or greater efficiency to the system in paragraph c.1.i. of this section, provided such system is approved by the Board.

2. There should be no visible holes, tears, or other openings in the seal or any seal fabric.

3. All openings, except stub drains, should be equipped with a cover, seal or lid. The cover, seal or lid should be in a closed position at all times except when the device is in actual use. Automotic bleeder vents should be closed at all times except when the roof is floated off or landed on the roof leg supports, rim vents, if provided, should be set to open when the roof is being floated off the roof ledge supports, or at the manufacturer's recommended settings.

4. The exterior aboveground surfaces (exposed to sunlight) should be painted white, light pastels or light metallic and such exterior paint should be periodically maintained in good condition. Repainting may be performed during normal maintaince periods.

II. Coating Industry

a. Large Appliance Coating

1. Prime or Single Coat Application

The control method should consist of one of the following:

i. Use of electrodeposited water-borne coatings.

ii. Use of other water-borne coatings.

iii. Use of high-solids coatings.

iv. Use of powder coatings.

v. Carbon adsorption.

vi. Incineration, provided that 90 percent of the nonmethane volatile organic compounds (volatile organic compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.

vii. Any control method of equal or greater efficiency to the method in paragraph a.1.vi. of this section, provided such method is approved by the Board.

2. Topcoat or Sound Deadener Application

The control method should consist of one of the following:

i. Use of water-borne coatings.

ii. Use of high-solids coatings.

iii. Use of powder coatings.

iv. Carbon adsorption.

v. Incineration, provided that 90 percent of the non-methane volatile organic compounds (volatile organic compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.

vi. Any control method of equal or greater efficiency to the method in paragraph a.2.v. of this section, provided such method is approved by the Board.

b. Magnet Wire Coating

The control method should consist of one of the following:

1. Use of water-borne coatings.
2. Use of powder coatings.
3. Incineration, provided that 90 percent of the non-methane volatile organic compounds (volatile organic compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.
4. Any control method of equal or greater efficiency to the method in paragraph b.3. of this section, provided such method is approved by the Board.

c. Automobile and Light Duty Truck Coating

1. Prime Application

The control method should consist of one of the following:

i. Use of electrodeposited water-borne coatings.

ii. Use of other water-borne coatings.

iii. Use of lower solvent (higher solids) organic solvent-borne systems.

iv. Carbon adsorption.

v. Incineration, provided that 90 percent of the non-methane volatile organic compounds (volatile organic compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.

vi. Any control method of equal or greater efficiency to the method in paragraph c.1.v. of this section, provided such method is approved by the Board.

2. Topcoat Application

The control method should consist of one of the following:

i. Use of water-borne coatings.

ii. Use of lower solvent (higher solids) organic solvent-borne systems.

iii. Carbon adsorption.

iv. Incineration, provided that 90 percent of the non-methane volatile organic compounds (volatile organic compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.

v. Any control method of equal or greater efficiency to the method in paragraph c.2.iv. of this section, provided such method is approved by the Board.

3. Final Repair Application

The control method should consist of one of the following:

i. Use of lower solvent (higher solids) organic solvent borne systems.

ii. Carbon adsorption.

iii. Incineration, provided that 90 percent of the non-methane volatile organic compounds (volatile organic compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.

iv. Any control method of equal or greater efficiency to the method in paragraph c.3.iii. of this section, provided such method is approved by the Board.

d. Can Coating

1. Sheet Basecoat (exterior and interior) and Overvarnish; Two Piece Can Exterior (basecoat and overvarnish)

The control method should consist of one of the following:

i. Use of electrodeposited water-borne coatings.

ii. Use of ultraviolet coatings.

iii. Use of high-solids coatings.

iv. Carbon adsorption.

v. Incineration, provided that 90 percent of the non-methane volatile organic compounds (volatile organic compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.

vi. Any control method of equal or greater efficiency to the method in paragraph d.1.v. of this section, provided such method is approved by the Board.

2. Two and Three-Piece Can Interior Body Spray; Two-Piece Can Exterior End (spray or roll coat)

The control method should consist of one of the following:

i. Use of water-borne coatings.

ii. Use of powder coatings.

iii. Use of high-solids coatings.

iv. Carbon adsorption

v. Incineration, provided that 90 percent of the non-methane volatile organic compounds (volatile organic compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.

vi. Any control method of equal or greater efficiency to the method in paragraph d.2.v. of this section, provided such method is approved by the Board.

3. Three-Piece Can Side-Seam Spray

The control method should consist of one of the following:

i. Use of water-borne coatings.

ii. Use of powder coatings.

iii. Use of high-solids coatings.

iv. Any control method which reduces the emission of all organic compound vapors into the atmosphere by at least 90 percent by weight, provided such method is approved by the Board.

4. End Sealing Compound Coating

The control method should consist of one of the following:

i. Use of water-borne coatings.

ii. Use of high-solids coatings.

iii. Any control method which reduces the emission of all organic compound vapors into the atmosphere by at least 90 percent by weight, provided such method is approved by the Board.

e. Metal Coil Coating

The control method should consist of one of the following:

1. Use of electrodeposited water-borne coatings.

2. Use of other water-borne coatings.

3. Use of high-solids coatings.

4. Incineration, provided that 90 percent of the non-methane volatile organic compounds (volatile organic

compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.

5. Any control method of equal or greater efficiency to the method in paragraph e.4. of this section, provided such method is approved by the Board.

f. Paper and Fabric Coating

The control method should consist of one of the following:

1. Use of water-borne coatings.

2. Use of high-solids coatings.

3. Use of other low solvent coatings, provided such coatings are approved by the Board.

4. Carbon adsorption.

5. Incineration, provided that 90 percent of the nonmethane volatile organic compounds (volatile organic compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.

6. Any control method of equal or greater efficiency to the method in paragraph f.5. of this section, provided such method is approved by the Board.

g. Vinyl Coating

The control method should consist of one of the following:

1. Use of water-borne coatings.

2. Use of high-solids coatings.

3. Carbon adsorption.

4. Incineration, provided that 90 percent of the nonmethane volatile organic compounds (volatile organic compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.

5. Any control method of equal or greater efficiency to the method in paragraph g.4. of this section, provided such method is approved by the Board.

h. Metal Furniture Coating

The control method should consist of one of the following:

1. Use of electrodeposited water-borne coatings.
2. Use of other water-borne coatings.
3. Use of powder coatings.
4. Use of high solids coatings.
5. Carbon adsorption.
6. Incineration, provided that 90 percent of the non-methane volatile organic compounds (volatile organic compounds measured as total carbon) which enter the incinerator are oxidized to carbon dioxide and water.
7. Any control method of equal or greater efficiency to the method in paragraph h.6. of this section, provided such method is approved by the Board.

III. Petroleum Industry

a. Gasoline Bulk Loading - Bulk Terminals

The control system should consist of the following:

1. A vapor collection and disposal system with the vapor disposal portion consisting of one of the following:
    - i. Compression - refrigeration - absorption system.
    - ii. Refrigeration system.
    - iii. Oxidation system.
    - iv. Any control system of equal or great efficiency to the systems in paragraph a.1.i. thru iii. of this section, provided such system is approved by the Board.
2. A vapor collection and disposal system with the vapor collection portion meeting the following criteria:
    - i. Loading should be accomplished in such manner that all displaced vapor and air will be vented only to the vapor disposal system. Measures should be taken to prevent liquid drainage from the loading device when it is not in use or to

accomplish substantially complete drainage before the loading device is disconnected.

ii. The pressure relief valves on storage containers and tank trucks should be set to release at no less than 0.7 psi or the highest possible pressure (in accordance with state or local fire codes, or the National Fire Prevention Association guidelines).

iii. Pressure in the vapor collection lines should not exceed tank truck pressure relief valve settings.

iv. All loading and vapor lines should be equipped with fittings which make vapor tight connections and which close when disconnected.

b. Miscellaneous Petroleum Refinery Sources

1. Vacuum Producing System

The control system should either vent non-condensable vapors to a firebox, incinerator or compress the vapors and add them to the refinery fuel gas. The associated hot wells should be covered and equipped with a vapor control system that incinerates the vapors.

2. Wastewater Separators

The control system should consist of one of the following:

i. A solid cover with all openings sealed and totally enclosing the liquid contents of that compartment.

ii. A floating pontoon or double-deck type cover, equipped with closure seals to enclose any space between the cover's edge and compartment wall.

iii. Any control system of equal or greater efficiency to the system in paragraphs b.2.i. or ii. of this section, provided such system is approved by the Board.

3. Process Unit Turnaround

The units should be depressurized to a flare, fuel gas system or to some other combustion device before being opened for inspection or maintenance. Such units should be depressurized to 5 psig or below before venting to the atmosphere.

c. Transfer of Gasoline - Gasoline Dispensing Facilities - Stage I

The control system should consist of the following:

1. A submerged fill pipe.

2. A vapor control system with the vapor recovery portion consisting of one of the following:

   i. A vapor tight return line from the storage container to the tank truck which shall be connected before gasoline is transferred into the container.

   ii. And adsorption system or condensation system.

   iii. Any control system of equal or greater efficiency to the system in paragraphs c.2.i. or ii. of this section, provided such system is approved by the Board.

3. A vapor control system with the vapor balance portion meeting the following criteria:

   i. There should be no leaks in the tank trucks pressure vacuum relief valves and hatch covers, nor truck tanks, storage tanks and associated vapor return lines during loading or unloading operations.

   ii. The pressure relief valves on storage containers and tank trucks should be set to release at no less than 0.7 psi or the highest possible pressure (in accordance with state or local fire codes, or the National Fire Prevention Association guidelines).

   iii. Pressure in the vapor collection lines should not exceed tank truck pressure relief valve settings.

   iv. All loading and vapor lines should be equipped with fittings which make vapor tight connections and which close when disconnected.

d. Gasoline Bulk Loading - Bulk Plants

1. The control system should consist of one of the following:

   i. Submerged filling of account trucks (either top-submerged or bottom fill) plus a vapor balance (displacement) system to control volatile organic compounds displaced by gasoline delivery to the storage tank.

ii. Any control system of equal or greater efficiency to the system in paragraphs d.1.i. of this section, provided such system is approved by the Board.

2. The control system in paragraph d.1. in this section should meet the following equipment specifications and operating procedures:

   i. For top-submerged and bottom-fill, the fill pipe should extend to within 6 inches of the bottom of the account truck during top-submerged filling operations. The fill pipe should extend to whithin 6 inches of the bottom of storage tanks during gasoline filling operations. Any bottom-fill is acceptable if the inlet is flush with the tank bottom.

   ii. For the balance system

      a There should be no leaks in the tank trucks' pressure vacuum relief valves and hatch covers, nor truck tanks or storage tanks or associated vapor return lines loading or unloading operations.

      b The pressure relief valves on storage containers and tank trucks should be set to release at no less than 0.7 psi or the highest possible pressure (in accordance with state or local fire codes, or the National Fire Prevention Assocation guidelines).

      c Pressure in the vapor collection lines should not exceed tank truck pressure relief valve settings.

      d All loading and vapor lines should be equipped with fittings which make vapor tight connections and which close when disconnected.

e. Petroleum Liquid Storage - Fixed Roof Tanks

1. The tank should be a pressure tank maintaining working pressure sufficient at all times to prevent vapor loss to the atmosphere, or be designed and equipped with one of the follwoing vapor control systems:

i. An internal floating roof resting on the surface of the liquid contents and equipped with a closure seal, or seals, to close the space between the roof edge and tank shell. All tank gauging and sampling devices should be vapor tight except when gauging or sampling is taking place.

ii. Any control system of equal or greater efficiency to the system in paragraph e.1.i. of this section, provided such system is approved by the Board.

2. There should be no visible holes, tears, or other openings in the seal or any seal fabric.

3. All openings, except stub drains, should be equipped with a cover, seal or lid. The cover, seal or lid should be in a closed position at all times except when the device is in actual use. Automatic bleeder vents should be closed at all times except when the roof is floated off or landed on the roof leg supports. Rim vents, if provided, should be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

4. The exterior above ground surfaces (exposed to sunlight) should be painted white, light pastels, or light metallic and such exerior paint should be periodically maintained in good condition. Repainting may be performed during normal maintenance periods.

APPENDIX N

COMPLIANCE SCHEDULES

I. Compliance by Process and Emission Control Equipment Installations

a. Owners proposing to comply with the emission standards prescribed under Sections 4.54 through 4.57 by the installation and operation of emission control equipment and/or replacement process equipment shall adhere to the increments of progress contained in the following schedule:

1. Final plans for the emission control equipment and/or process equipment installation and operation shall be submitted within 6 months of the effective date of the applicable emission standard.

2. Contracts for the emission control equipment and/or process equipment installation shall be awarded, or orders shall be issued for purchase of component parts to accomplish installation, within 16 months of the effective date of the applicable emission standard.

3. Initiation of on-site construction for the installation of the emission control equipment and/or process equipment shall begin within 22 months of the effective date of the applicable emission standard.

4. On-site construction or installation of the emission control equipment and/or process equipment shall be completed within 30 months of the effective date of the applicable emission standard.

5. Final compliance, determined in accordance with test methods acceptable to the Board, shall be achieved within 32 months of the effective date of the applicable emission standard.

b. Owners of sources subject to the compliance schedule in Section I.a. of this appendix shall certify to the Board within 5 days after deadline for each increment of progress, whether the required increment of progress has been met.

II. Compliance by Process Equipment Modification

a. Owners proposing to comply with the emission standards prescribed under Sections 4.54 through 4.57 by the modification of existing processing equipment shall adhere to the increments of progress contained in the following schedule.

1. Final plans for the process equipment modification shall be submitted within 6 months of the effective date of the applicable emission standard.

2. Contracts for the process equipment modification shall be awarded, or orders shall be issued for the purchase of component parts to accomplish the process equipment modification, within 15 months of the effective date of the applicable emission standard.

3. Initiation of on-site construction for the modification of the process equipment shall begin within 18 months of the effective date of the applicable emission standard.

4. On-site construction or installation of process modifications shall be completed within 22 months of the effective date of the applicable emission standard.

5. Final compliance, determined in accordance with test methods acceptable to the Board, shall be achieved within 24 months of the effective date of the applicable emission standard.

b. Owners of sources subject to the compliance schedule in Section II.a. of this appendix shall certify to the Board within 5 days after the deadline for each increment of progress, whether the required increment of progress has been met.

III. Compliance by Use of Low Solvent Content Coating Technology

a. Except as provided under Section III.c. of this appendix, owners proposing to comply with the emission standards prescribed under Section 4.55 by use of low solvent content coating technology shall adhere to the increments of progress contained in the following schedule:

1. Final plans for the use of low solvent content coating technology shall be submitted within 6 months of the effective date of the applicable emission standard.

2. Research and development of low solvent content coatings shall be completed within 18 months of the effective date of the applicable emission standard.

3. Evaluation of low solvent content coating product quality and commercial acceptance shall be completed within 24 months of the effective date of the applicable emission standard.

4. Purchase orders shall be issued for low solvent content coatings and process modifications within 26 months of the effective date of the applicable emission standard.

5. Initiation of process modifications shall begin within 28 months of the effective date of the applicable emission standard.

6. Process modifications shall be completed and use of low solvent content coatings shall begin within 34 months of the effective date of the applicable emission standard.

7. Final compliance, determined in accordance with test methods acceptable to the Board, shall be achieved within 36 months of the effective date of the applicable emission standard..

b. Owners of sources subject to the compliance schedule in Section III.a. of this appendix shall certify to the Board within 5 days after the deadline for each increment of progress, whether the required increment of progress has been met.

c. Where the Board determines that low solvent content coating technology has been sufficiently researched and developed for a particular application, owners proposing to comply with the emission standards prescribed under Section 4.55 by the use of low solvent content coating technology shall adhere to the increments of progress contained in the following schedule:

    1. Final plans for the use of low solvent content coating technology shall be submitted within 6 months of the effective date of the applicable emission standard.

    2. Evaluation of low solvent content coating product quality and commercial acceptance shall be completed within 16 months of the effective date of the applicable emission standard.

    3. Purchase orders shall be issued for low solvent content coatings and process modifications within 18 months of the effective date of the applicable emission standard.

    4. Initiation of process modifications shall begin within 22 months of the effective date of the applicable emission standard.

    5. Process modifications shall be completed and use of low solvent content coatings shall begin within 30 months of the effective date of the applicable emission standard.

    6. Final compliance, determined in accordance with test methods acceptable to the Board, shall be achieved within 32 months of the effective date of the applicable emission standard.

d. Owners of sources subject to the compliance schedule in Section III.c. of this appendix shall certify to the Board within 5 days after the deadline for each increment of progress, whether the required increment of progress has been met.